Marquis 720 Fly

Owner's Guide

MARQUIS

HIN: CDR_____

2012 Version 1

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Robert VanGrunsven
President

Congratulations and Welcome Aboard!

This Owner's Guide was designed to acquaint you with the safe, proper operation and maintenance of your new yacht and its systems. Your first duty as Captain of your new Marquis yacht should be to read your Owner's Guide and all manufacturer-supplied operating and maintenance instructions found within your Owner's Information kit.

Be sure to mail in all manufacturer registrations and warranty cards to validate your Marquis Yachts' and OEM warranties. These warranty cards have been assembled and are contained in the OEM information packets within your Owner's Information kit. Marquis Yachts is proud to be supported by an exclusive network of experienced and knowledgeable dealers. If you have any questions regarding your new yacht including warranty please contact your selling dealer. Please read all of your warranties carefully and remember that your selling dealer is your point of contact for all questions and warranty issues.

If you're new to yachting, learn the proper rules of seamanship to ensure the safety of your passengers. Refer to Chapman's Piloting, Seamanship and Small Yacht Handling and attend a safe yachting class offered by the U.S. Coast Guard Auxiliary, United States Power Squadron, or any enterprise experienced in conducting safe yachting courses.

Thank you for choosing Marquis Yachts. We're confident your new yacht will provide you and your family with years of enjoyable cruising.

Robert VanGrunsven
President

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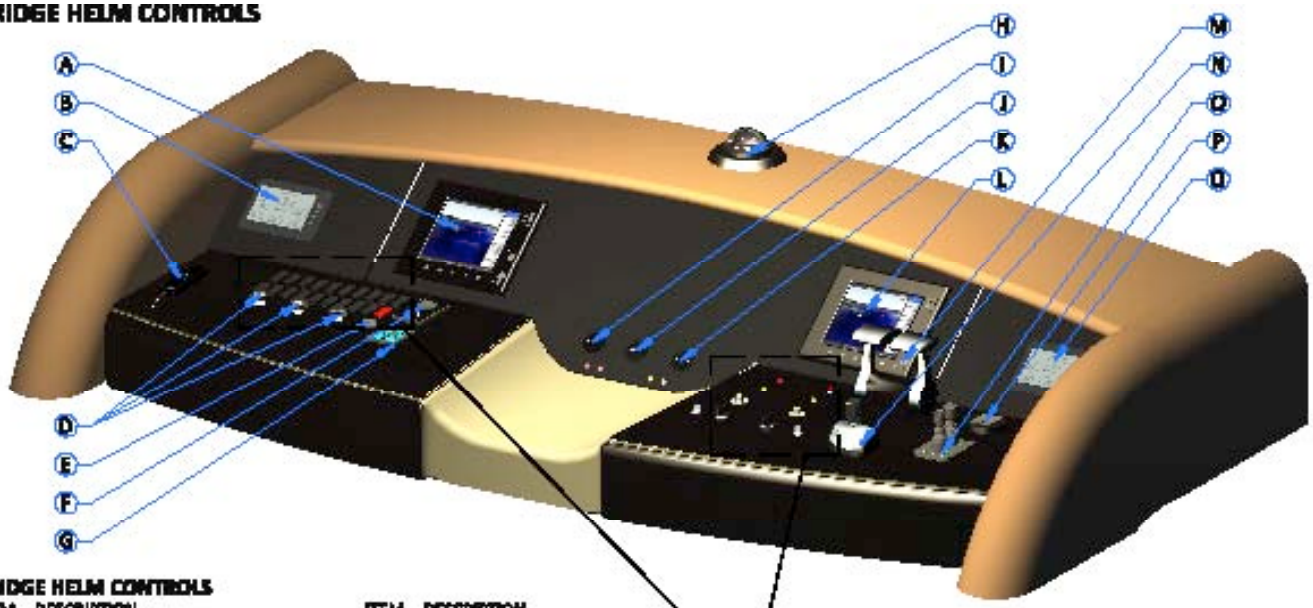
LOWER HELM COMPONENTS

BRIDGE HELM CONTROLS

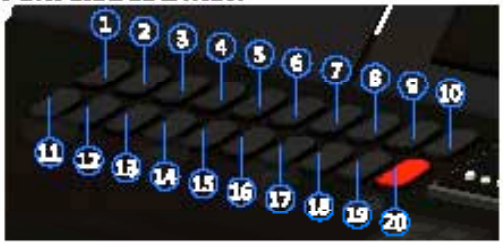


BRIDGE HELM CONTROLS

ITEM	DESCRIPTION
A	Raymarine Digital Display (PORT)
B	CAT Engine Display (PORT)
C	Raymarine Display Controller
D	Windshield Wiper Control
E	12V DC Access
F	Spotlight Control
G	Helm Transfer Control
H	Compass
I	PORT Fuel Gauge

ITEM	DESCRIPTION
J	Rudder Control
K	STBD Fuel Gauge
L	Raymarine Digital Display (STBD)
M	Shift/Throttle Control
N	Joystick Docking Control
O	Thruster Manual Control
P	Trim Tabs
Q	CAT Engine Display (STBD)

HELM SWITCHES AND CONTROLS: PORT SIDE LOCATION



HELM SWITCHES: Numbered 1 - 20 Above

ITEM	DESCRIPTION
1	Spare
2	Spare
3	Spare
4	Defogger
5	Overhead Lights
6	Engine Room Lights
7	Lights: Bright/Dim
8	Docking Lights
9	Anchor Lights
10	Navigation Lights

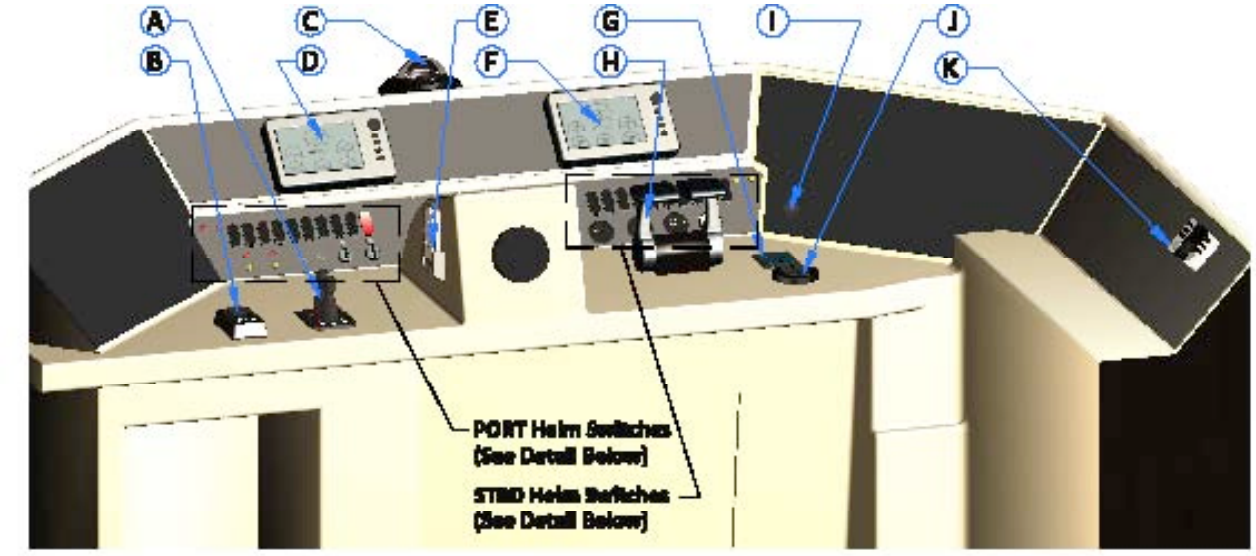
ITEM	DESCRIPTION
11	Windlass ON/OFF
12	Anchor UP/DOWN
13	Spare
14	Blower
15	Bilge Pump 5
16	Bilge Pump 4
17	Bilge Pump 3
18	Bilge Pump 2
19	Bilge Pump 1
20	Horn

HELM CONTROLS: STBD SIDE LOCATION

IGNITION CONTROLS
PORT Ignition Control
STBD Ingition Control
PORT Engine Shutoff
STBD Engine Shutoff

WARNING LIGHTS
Diagnostic Lights
Warning Lights

BRIDGE HELM CONTROLS

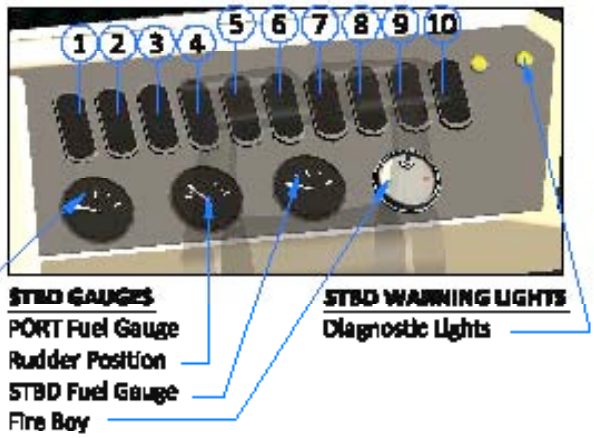


BRIDGE HELM CONTROLS

ITEM	DESCRIPTION
A	Thruster Manual Control
B	Spotlight Control
C	Compass
D	CAT Engine Display Panel - PORT
E	Thruster Docking Remote
F	CAT Engine Display Panel - STBD
G	Helm Control Pad
H	Shift Throttle Control
I	12V DC Accessory
J	Trim Tabs
K	Stereo

PORT HELM SWITCHES AND CONTROLS

STARBOARD HELM SWITCHES AND CONTROLS



PORT HELM SWITCHES: Numbered 1 - 10 Above

ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	Engine Room Lights	6	Overhead Lights
2	Overhead Lights	7	Docking Lights
9	Spare	8	Anchor Lights
4	Lights Brights/Dim	9	Navigation Lights
5	Courtesy Lights	10	Horn

STARBOARD HELM SWITCHES: Numbered 1 - 10 Above

ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	Blower	6	Bilge Pump #5
2	Bilge Pump #1	7	Spare
3	Bilge Pump #2	8	Spare
4	Bilge Pump #3	9	Windlass Anchor
5	Bilge Pump #4	10	Anchor: Up/Down

USING THE OWNER'S INFORMATION KIT

THE OWNER'S INFORMATION KIT CONTAINS:

Qty.	Item
1	Owner's Guide
(Varies)	OEM information

Please read the Owner's Guide and OEM (Original Equipment Manufacturer) **information carefully. Become familiar with the yacht, its components, and systems before attempting to operate.**

NOTE: The Owner's Information kit must be onboard when the yacht is in operation. If the yacht gets sold, the new owner must receive the Captains Kit.

OWNER'S GUIDE

The Owner's Guide purpose is to explain how to safely operate and maintain the yacht and it's various systems. The Owner's Information Kit also contains safety precautions and operation tips, as described below:

PRECAUTION	DESCRIPTION
DANGER	Describes a hazard that can cause death or severe injury if the instructions are ignored.
WARNING	Describes a hazard that can cause serious injury and/or property damage if the instructions are ignored.
CAUTION	Describes a hazard that can cause damage to the yacht or its components if the instructions are ignored.
NEVER	Describes a user based hazard that should NEVER be performed.
NOTE:	Provides important information that can help avoid problems.
A Tip From Marquis!	Provides various tips to keep the yacht in top condition

Please obtain handling and operation experience before operating your new yacht. Gaining experience is imPortant if this is your first yacht, or if changing to a type of yacht that is unfamiliar. Gaining experience is for your own comfort and safety. Your dealer, national sailing federation, or yacht club can advise local sea schools or competent instructors.

NOTE: Drawings and illustrations contained within this guide are included as graphic aids to assist in the general operation and maintenance of the yacht. The drawings and illustrations are used for graphic purposes only. The drawings do not include all of the details of each system, and the drawings are not to scale. Do not reference the drawings to order parts or to service the yacht. Contact an authorized Marquis Dealer for parts or service required.

A Tip From Marquis!

Many people within the Marquis organization are avid yachters. Some of the experience gained during our years of yachting are presented in this Owner's Guide. The information is presented under the heading, "A TIP FROM MARQUIS."

The information contained within the Owner's Guide is complete and accurate at the time the guide was printed. Marquis Yachts reserves the right to change materials, part numbers, specifications, or system designs at any time without notice.

PRE-DELIVERY SERVICE RECORD

The Pre-Delivery Service Record, on the following page, must be completed and signed by your Marquis Dealer before the yacht can be delivered. Your Marquis Dealer will prepare the yacht for delivery in accordance with the procedures detailed within this document.

Make sure the Pre-Delivery Service Record and all OEM warranty cards have been completed and mailed to the companies listed. Make sure to retain a copy of the Pre-Delivery Service Record for your own reference.

WARRANTY REGISTRATION

Marquis Yachts warrants every yacht the company manufactures, as explained in the Marquis Limited Warranty. The owner's copy of the warranty is located in Section 9. Please review the warranty carefully.

The Warranty Registration on the following page is the first step in activating your Marquis Yachts limited warranty. This document must be completed and signed by you and your Marquis Dealer before taking delivery of the yacht. Failure to complete and register the Warranty Registration could void the Marquis Yachts limited warranty. Your Marquis Dealer will review the terms of the Marquis Yachts warranty, and make sure the warranty is registered with Marquis Yachts.

To ensure the warranty remains in effect during its lifetime, Marquis Yachts, your Marquis Dealer, and you (the owner) must each uphold specific responsibilities. The following responsibilities are described in Section 9.

At time of delivery, make a complete inspection of the yacht and its systems. Document any work that needs to be completed by the Dealer to meet the terms of your agreement.

Two cards are located at the end of the Preface. The cards are Second and Third Owner Registration Cards. Marquis strongly recommends that the purchaser of a previously-owned Marquis, register ownership with Marquis Yachts.

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MARQUIS YACHT CORPORATION
PO BOX 1010
PULASKI WI 54162-1010

MARQUIS YACHT CORPORATION
PO BOX 1010
PULASKI WI 54162-1010

THIRD OWNER REGISTRATION

Owner's Name: _____

Street Address: _____

City:_____ State: _____ Zip Code: _____

Telephone: (____) _____ Date of Purchase: _____

Purchased From:_____

Yacht Hull Identification Number: CDR _____

Third Owner Registration does not extend, alter, or transfer the Marquis Limited Warranty. Refer to the Marquis Limited Warranty for details.

SECOND OWNER REGISTRATION

Owner's Name: _____

Street Address: _____

City:_____ State: _____ Zip Code: _____

Telephone: (____) _____ Date of Purchase: _____

Purchased From:_____

Yacht Hull Identification Number: CDR _____

Second Owner Registration does not extend, alter, or transfer the Marquis Limited Warranty. Refer to the Marquis Limited Warranty for details.

YACHTING SAFETY

YACHTING SAFETY IS YOUR RESPONSIBILITY. Fully understand the operating procedures and safety precautions outlined in the Owner's Information Kit and this Owner's Guide before operating the yacht. **SAFE YACHTING IS NO ACCIDENT**.

SAFE OPERATION

Safe operation includes, but is not limited to, the following:

- Keep the yacht and equipment in safe operating condition. Inspect the hull, engines, safety equipment, and all yachting gear regularly.

  NOTE: Federal law requires the owner to provide and maintain safety equipment onboard. Consult the U.S. Coast Guard, state, and local regulations to ensure all required safety equipment is onboard. Additional equipment may be recommended for your safety and the safety of the passengers. Become aware of the safety equipment's availability and use.

- Use caution when fueling the yacht. Understand the fuel tank's capacity, and fuel amount used when operating at frequently used engine speeds (RPMs).
- Make sure enough fuel is stored for cruising requirements. Know the tank's cruising radius and fuel tank range. Typical tank usage: 1/3 of the supply to reach the destination, 1/3 to return, and keep1/3 in reserve for changes in plans due to weather or other circumstances.
- **ALWAYS** keep fire extinguishing and lifesaving equipment onboard. The safety equipment must meet regulatory standards, and should be noticeable, accessible, and in proper operating condition. Passengers onboard should know of the equipment's location, and how to use each piece of equipment.
- Keep an eye on the weather. Be aware of possible changing conditions by checking local weather reports before departure. Monitor strong winds and electrical storms.
- Always keep accurate, updated charts of the areas chosen to cruise. Keep back up charts if a chart plotter is used.
- File a Float Plan with a family member, relative, friend, or other responsible person ashore before departure from PORT or harbor.
- Always practice safe yachting, courtesy, and common sense.
- Instruct at least one passenger onboard with the yacht's basic operation. The designated person can take over if the operator is unexpectedly, unable to maintain control.
- **DO NOT** allow passengers to ride anywhere other than designated seating areas.
- Ask all passengers to remain seated while the yacht is in motion.
- **DO NOT** use the boarding platform or boarding ladder, while either of the engines are running. Both engines must be shut off.
- **Understand and obey the "Rules of the Road."** Always maintain complete control of the yacht.
- **DO NOT** overload or improperly load the yacht. See Section 9: *Load Capacity,* for instructions on maximum capacity
- **DO NOT** travel faster than conditions warrant or beyond your abilities.
- **DO NOT** operate the yacht in weather or sea conditions beyond your skill and experience.
- **DO NOT** operate the yacht while under the influence of drugs and/or alcohol.
- **DO NOT** operate the yacht if visually impaired.

ADVERSE CONDITIONS

WEATHER

All passengers should be aware of present weather conditions and the weather forecast at all times. Check the forecast before beginning a day of yachting. However, be aware that weather conditions can change rapidly.

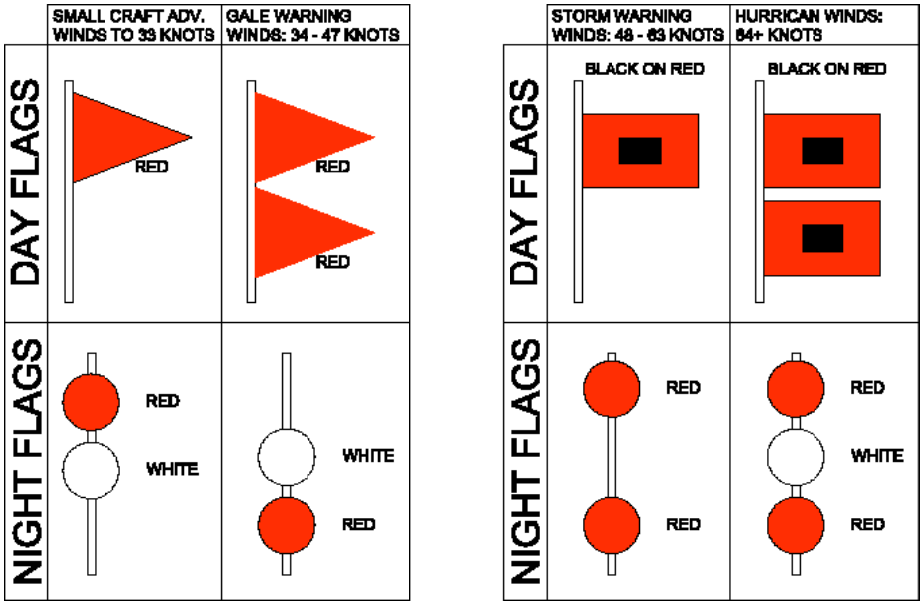
If a marine radio is onboard:

- Listen to the weather reports issued by the U.S. Coast Guard and other sources.

If a portable radio is onboard:

- Keep the radio tuned to a station broadcasting frequent weather reports. Many yachting clubs fly weather signals; learn to recognize the following weather signals.

WEATHER SIGNALS



STORM PREPARATION

Storms rarely appear without advance notice. If a storm is a possibility, keep a watch on the horizon, especially to the West, for the storm's approach. Watch for changes in wind direction or cloud formations. Understanding the weather conditions, and what to do when the weather takes a turn for the worse is important.

If a storm is approaching, the best course of action is to return to PORT. If unable to return, prepare to weather the storm. To do so:

- Close portlights, exterior doors and hatches and secure them. Stow all loose gear below deck, and tie down any gear on deck.
- Reduce speed as the seas build.
- Make sure all persons onboard are wearing the personal flotation devices.
- Drop a sea anchor over the stern to maintain the bow into the seas. If a sea anchor is unavailable, use a canvas bucket, tackle box, or other object that will replace the anchor.

FOG

Fog is a result of either warm-surface or cold-surface conditions. Periodically measure the air temperature and dew point temperature to determine the liability of fog formation. Fog is likely to develop if the difference between the air temperature and dew point temperature is small.

Remember the following guidelines:

- Head for shore at the first sign of fog, unless the yacht is well equipped with charts and navigational equipment and wait until conditions improve. If charts are available onboard: take bearings as fog sets in, mark the current position, and continue to log the course and speed.
- All persons onboard should put on their personal flotation devices.
- If sound equipment is installed, check soundings regularly and match the sounds with depths shown on the charts.
- Station a person forward in the yacht as a lookout.
- Reduce speed. Periodically, stop the engines and listen for surrounding fog signals.
- Sound the horn or fog bell intermittently to warn others.
- Set anchor if there is doubt in continuing the cruise. Listen for other fog signals while continuing to sound the fog horn or bell.

EMERGENCY PROCEDURES

It is important to obtain training to handle any emergency that may arise. The following is **NOT** an exhaustive list of situations that may be encountered while yachting; however, this section serves as a guide to aid in emergencies.

FIRE

To help prevent a fire onboard the yacht:

- Keep the bilges clean and check for fuel vapors at regular intervals.

NEVER

- **NEVER FIT FREE-HANGING CURTAINS OR OTHER FABRICS NEAR, OR ABOVE THE STOVE TOP, OR OTHER HIGH-HEAT DEVICES.**
- **NEVER STORE MATERIALS OR EQUIPMENT OF ANY KIND IN THE ENGINE ROOM.**

DANGER

ANY FIRE ONBOARD THE YACHT IS SERIOUS. EXPLOSION IS POSSIBLE. DEVELOP A FIRE RESPONSE PLAN. RESPOND IMMEDIATELY TO ANY EMERGENCY.

EVERY YACHTER SHOULD DEVELOP A FIRE RESPONSE PLAN. THE PLAN SHOULD DETERMINE:

- **THE TYPE OF FIRE (FUEL, ELECTRICAL, ETC.)**
- **WHERE THE TYPE OF FIRE, LISTED ABOVE, MIGHT BREAK OUT**
- **THE BEST WAY TO REACT**

HAVE A PLAN. ASSIGN RESPONSIBILITIES TO OTHERS TO ALLOW QUICK DECISIONS AND REACTIONS.

NEVER

- **NEVER OBSTRUCT PASSAGE WAYS TO EXITS AND HATCHES.**
- **NEVER OBSTRUCT SAFETY CONTROLS, SUCH AS FUEL VALVES AND ELECTRICAL SYSTEM SWITCHES.**
- **NEVER OBSTRUCT PORTABLE FIRE EXTINGUISHERS IN LOCKERS.**
- **NEVER LEAVE THE YACHT UNATTENDED WHILE COOKING, OR WHILE HEATING APPLIANCES ARE IN USE.**
- **NEVER USE GAS LIGHTS IN THE YACHT.**
- **NEVER MODIFY ANY OF THE YACHT'S SYSTEMS, ESPECIALLY ELECTRICAL OR FUEL.**
- **NEVER FILL THE FUEL TANKS WHILE: MACHINERY IS RUNNING, WHILE COOKING, OR HEATING APPLIANCES ARE IN USE.**
- **NEVER SMOKE WHILE HANDLING FUEL.**

NOTE: Everyone onboard should know of the fire extinguisher locations, and how to operate the extinguishers.

IN CASE OF FIRE

- Stop the engines immediately.
- Shut off the bilge blowers immediately if the fire is in the engine room.
- **DO NOT** open the hatch to the engine room. The fire will flare up if the fresh air supply increases suddenly.
- Keep the fire downwind if possible. Head into the wind if the fire is aft of the yacht.
- Have all persons onboard put on their personal flotation devices.
- If the fire is accessible. **USE THE FIRE EXTINGUISHER**.
    1. Aim the fire extinguisher at the base of the flames
    2. Use a sweeping motion to put out the fire.

It is the owner and/or crew's decision to abandon the yacht. If the decision is to abandon ship, **ALL** persons onboard should jump overboard, and swim to a safe distance away from the burning yacht.

FLOODING

If water is leaking in the hull, and the yacht is taking on water:

1. Turn ON the bilge pumps.
2. Assign someone to bail out the bilge and investigate the cause of the flooding.
3. Attempt to repair the yacht when the source of the leak is found.

Almost anything can be stuffed into the opening to stop the leaking temporarily. Leak plugging material will work better if applied from the exterior where water pressure can aid in stopping the leak. Station a crew member to hold the plug in place if the plug is applied from the inside. In all cases, assign a crew member or passenger to watch the plugged area and alert others if the plug fails.

SWAMPED OR CAPSIZED YACHT

IMMEDIATELY PUT ON A PERSONAL FLOTATION DEVICE, AND SET OFF A DISTRESS SIGNAL IF THE YACHT BECOMES SWAMPED OR CAPSIZED. Chances are good that a capsized yacht will stay afloat. To ensure the safety of the crew and yacht, it is important to:

- Stay with the yacht, unless an emergency situation occurs.
- Do not leave the yacht or try to swim to shore except under extreme conditions.
- Remember, a capsized yacht is easier to see than a swimmer
- Remember, the shore may be further away than it appears.

To reduce the occurrence of a swamped or capsized yacht:

1. Reduce headway and turn the yacht slightly if water is coming over the bow.
2. Turn the yacht so the bow is slightly off from meeting the waves head on.
3. Drop a sea anchor over the stern, and adjust the length of the line to hold the bow at the most favorable angle.

COLLISION

If a serious collision occurs, check everyone onboard for injuries, then inspect the entire yacht to determine the extent of the damage.

- Prepare to help the other craft unless your yacht or passengers are in danger.
- If the hull has been penetrated, prepare to plug the fracture once the colliding yachts have been separated.
- Shore up the hole inside of the yacht with a spare life jacket or bunk cushion.
- Trim weight, if possible, to get the hole above the water level during repairs.
- If the yacht is in danger of sinking, have everyone onboard put on the personal flotation devices.
- If a radio is installed, immediately, contact the U.S. Coast Guard or other rescue authorities on VHF channel 16 or CB radio channel 22. (VHF channels 9 or 13 or a cellular phone in some states may be available).

RUNNING AGROUND

Excessive weight in the fore or aft sections of the yacht will cause a trim change, and may yield greater draft than expected. Equip the yacht with a quality depth-measuring instrument, and allow ample water below the hull while operating.

IF THE YACHT RUNS AGROUND:

- Check everyone onboard for injuries
- Inspect the yacht for damage.

IF LIGHTLY GROUNDED:

- Shift the weight of the passengers or gear to heel the yacht while reversing engines.

IF TOWING BECOMES NECESSARY:

- Use a commercial towing service.

NEVER

NEVER ATTACH A TOW LINE TO A SINGLE DECK CLEAT OR ANCHOR WINDLASS. The cleats and windlass are not designed to take the full load of the yacht and may pull free from the deck, causing serious injury or property damage.

MAN OVERBOARD

In the event that someone falls overboard, understanding what to do is important. Emergency procedures are published in *Chapman Piloting* publications, and instruction is offered by the U.S. Coast Guard.

Hypothermia may be an immediate concern if a person falls overboard. Hypothermia occurs when a person's body loses heat faster than the body can replace it. The person will become exhausted or likely drown if not rescued in a timely manner. The colder the water, the faster body's heat is lost. Personal flotation devices increase survival time because they provide insulation. To understand the survival time to water temperature ratio, see the "Water Survival Chart" below:

WATER SURVIVAL CHART

Water Temp. (°F)	Exhaustion Unconsciousness	Expected Time of Survival
32.5	Under 15 min.	Under 45 min.
32.5-40	15-30 min.	30-90 min.
40-50	30-60 min.	1-3 hr.
50-60	1-2 hr.	1-6 hr.
60-70	2-7 hr.	2-40 hr.
70-80	3-12 hr.	3 hr.- Indefinite
Over 80	Indefinite	Indefinite

MEDICAL EMERGENCY

- No one should act as a doctor, if not properly trained.
- Someone onboard should know first aid. First aid training is available through your local Red Cross.
- Keep a fully stocked first aid kit onboard at all times.

EQUIPMENT FAILURE

- Steering, propulsion, and control failure can be prevented by having the yacht maintained and checked periodically.
- Radio for help or signal with flags and wait for help if the systems fail.

RADIO COMMUNICATION (U.S. ONLY)

It is the yachter's responsibility to obtain a radio operator's permit, and follow and understand proper rules and procedures. Private yachts are not required to have a radio on board at all times. However, if a radio is available, it should be tuned to channel 16 unless it is being actively used. Channel 16 is the frequency for emergency calls or initial calls between yachts. Once contact is established on channel 16, change the frequency to channel 22.

Additional information on radio communications can be found in *Chapman's Piloting* publications.

DISTRESS SIGNALS

The yacht operator is required, by law, to lend assistance to a craft in distress. Assistance must be given as long as your life or yacht is not put in harm's way in the process. In the United States, Good Samaritan laws protect the public from liability incurred while giving aid.

SAFETY EQUIPMENT

NOTE: Sections of this chapter titled: *Safety Equipment* and *Owner's Responsibilities* applies to US regulations ONLY - EXCLUDING the section titled: *Pre-departure Actions*

FEDERAL LAW REQUIRES YACHT OWNERS TO PROVIDE AND MAINTAIN SAFETY EQUIPMENT ONBOARD. Consult the US

regulations to ensure that all the required safety equipment is onboard. It is the owner's responsibility to learn about additional recommended equipment before operating their yacht.

PERSONAL FLOTATION DEVICES (PFD'S)

- A minimum of one personal flotation device is required for each person onboard. The PFD must be U.S. Coast Guard-approved wearable (Type I, II, or III).
- The PFD's must be readily accessible and in serviceable condition.
- The PFD's must be of a suitable size for each person onboard.
- A minimum of three PFD's (two wearable and one throwable) are required regardless of the number of persons onboard.

PFD TYPE I, WEARABLE:

- Type I is the most effective life preserver for all waters when rescue may be delayed.
- Type I is designed to turn most unconscious or drowning people from a facedown position to a vertical or face-up position.

PFD TYPE II, WEARABLE:

- Type II is a near-shore buoyant vest. Type II is intended for calm inland waters when a quick rescue is anticipated.
- Type II turns the person to a face up position, but the turning action is not as evident as the Type I. Type II will not typically turn people over in the same manner as Type I.

PFD TYPE III, WEARABLE:

- Type III is classified as a flotation aid; however, the device **WILL NOT** turn a victim to a face-up position.
- Type III is frequently used in water sports, and SHOULD BE AVOIDED IN PERSONAL YACHTING.

PFD TYPE IV, THROWABLE:

- At least one throwable Type IV PFD device is required onboard at all times.
- Type IV PFD does not strap to the user.
- Type IV PFD must be thrown to a person in the water and held by the user until rescued.
- The most common Type IV PFD's are buoyant cushions or ring buoys.
- Type IV PFD must be in serviceable condition and immediately available for use.

VISUAL DISTRESS SIGN (VDS)

Visual distress signal equipment is required by the U.S. Coast Guard for all yachts operating on U.S. coastal waters. Yachts owned in the United States and operating on the high seas must also carry VDS equipment. The visual distress equipment signal must be readily accessible and in serviceable condition. Both pyrotechnic and non-pyrotechnic equipment must be U.S. Coast Guard approved. Both types of distress signal equipment can become ineffective with age. Replace the equipment before taking the yacht out if the equipment's usage date has expired.

Approved pyrotechnic equipment includes:

- Hand held or aerial red flares
- Hand held or floating orange smoke
- Launchers for aerial red meteors or parachute flares

Approved non-pyrotechnic equipment includes:

- Orange distress flag
- Dye markers
- Electric distress light.

No single signaling device is ideal under all conditions. Carrying a variety of visual distress signal equipment onboard is important. Select devices with packaging that children ONLY will find difficult to open, especially if children are onboard.

SOUND SIGNALING DEVICE

The yacht must be equipped with an operable device that can produce a sound signal if conditions require.

Required sound devices include:

- One horn is standard on all Marquis models.
- Yachts longer than 39' 4", one bell and one whistle is required. The devices must meet the Inland Navigational Rules Act of 1980.

For details on the appropriate signals, refer to the *Navigational Rules* published the U.S. Coast Guard, International-Inland.

RUNNING AND NAVIGATION LIGHTS

- Running and navigation lights must be turned on for safe operation after dark.
- Observe all navigation rules for meeting and passing.
- Do not run at high speeds during night operation.
- Always use common sense and good judgment while cruising at night.

RADAR REFLECTORS

Radar reflectors, if installed, should measure at least 18" diagonally. The reflectors should be placed 12'-0" above the waterline to ensure that other yachts with radar reflectors have sight of your yacht.

FIRE EXTINGUISHERS

Fire extinguishers must be approved by the U.S. Coast Guard. The U.S. Coast Guard classifies fire extinguishers by the type of fire the extinguisher can extinguish. The fire extinguisher classifications include: foam, carbon dioxide, chemical, and Halon. Below is the standard extinguishing equipment on the yacht:

Yachts longer than 40' and shorter than 65': The yacht has a fixed fire extinguishing system approved by the U.S. Coast Guard. It is the owners responsibility to install either: Two Type B-I (or) one Type B-II extinguisher is on board.

All fire extinguishers should be mounted in a readily accessible location, away from the engine room. Everyone onboard should know of the fire extinguisher locations, and how to operate the extinguishers.

If a charge indicator gauge is equipped on the fire extinguisher, cold or hot weather may affect the gauge reading. Consult the manufacturer's manual supplied with the fire extinguisher to determine the gauge accuracy.

Check and maintain the fire extinguishing equipment in accordance with the manufacturer's recommendations. Replace fire fighting equipment if expired or discharged. Replace with devices of identical or greater fire fighting capacity.

RECOMMENDED EQUIPMENT

In addition to the required equipment, Marquis recommends carrying the following:

- Spare anchor
- Heaving line
- Fenders
- Flashlight
- Mirror
- Suntan lotion
- Spare propeller(s)
- Tool kit
- Ring buoy
- Navigational charts
- Mooring lines
- Binoculars
- Spare parts
- Spare pump

OWNER'S RESPONSIBILITIES

SAFE YACHTING COURSES

Your local U.S. Coast Guard Auxiliary and the U.S. Power Squadrons offer comprehensive safe yachting classes several times per year. Contact the Yacht US Foundation at: 1-800-336-Yacht (2628) (or) in Virginia, at 1-800-245-Yacht (2628), or e-mail at: www.yachtus.com.

For a course schedule in your area, contact your local U.S. Coast Guard Auxiliary or Power Squadron Flotilla for the time and place of their next scheduled class.

The United States Inland Rules applies to all vessels inside the demarcation lines separating inland and international waters. The U.S. Coast Guard lists the traffic regulations in the *Navigational Rules, International-Inland* publication. A copy can be obtained from a local U.S. Coast Guard Unit or the United States Coast Guard Headquarters at: 1300 E. Street NW, Washington, D.C. 20226.

Other helpful publications available from the U.S. Coast Guard include:

- Aids to Navigation (U.S. Coast Guard pamphlet #123), publication explains the significance of various lights and buoys
- Yachting Safety Training Manual
- Federal Requirements for Recreational Yachts

Check with your local U.S. Coast Guard station, your Marquis Dealer, or a local marina about navigational aids unique to your area.

DOCUMENTATION

A *Certificate of Number* is issued to a yacht owner registered with the U.S. Coast Guard. The certificate must be onboard when the yacht is in use. State registration is required. Check with the U.S. Coast Guard, or your state regulatory agency, to determine what other records are required onboard.

The following logs are strongly recommended to be maintained, in addition to the required documents. Log books are available from maritime supply stores. The recommended logs include:

- **Navigation Log**, containing: engine speeds, compass courses, and time records is essential for both cruising and maintenance purposes.
- **Radio Log**: mandatory on vessels that are required to carry a radio. A radio log can be useful to record unusual events, especially for future litigation.
- **Maintenance Log**: used to track the type and frequency of maintenance procedures performed on the yacht and the yacht's systems. Refer to Section 7 for additional information on yacht maintenance.
- **An Engine/fuel Log**: essential for calculating range and fuel requirements.
- **GPS Log**: used if a GPS is equipped onboard.

DRUGS AND ALCOHOL

Drugs and alcohol adversely affect a person's ability: to make sound judgments, react quickly, and operate a yacht safely. As a responsible yachter, it is strongly recommenced to refrain from using drugs or alcohol while operating the yacht. Operating a motorized yacht while under the influence of drugs or alcohol carries a significant penalty.

DISTRESS CALLS

If a ship-to-shore radio telephone is installed, heed storm warnings, and answer any distress calls from other yachters. The word "**MAYDAY**" spoken three times is the international signal of distress. Monitor marine radio channel 16 is reserved for emergency and safety messages. Channel 16 is also used to contact the U.S. Coast Guard or other yachters if there is trouble.

NEVER

NEVER SEND A "MAYDAY" MESSAGE UNLESS THERE IS A SERIOUS EMERGENCY AND IMMEDIATE ASSISTANCE IS REQUIRED.

VOLUNTARY INSPECTIONS

Courtesy inspections are offered by the U.S. Coast Guard Auxiliaries or State Yachting Officials in many states to ensure that all yachts comply with safety standards, and the required safety equipment is onboard. After a voluntary inspection, time is given to make corrections without prosecution. Check with the appropriate state agency or the U.S. Coast Guard Auxiliary for details.

YACHTING ACCIDENTS

A vessel used for recreational purposes is required to file a report when:

- An accident resulting in loss of life or disappearance from a vessel
- An injury requiring medical treatment beyond first aid

- Property damage in excess of $200
- Complete loss of the vessel.

In cases of death and injury, reports must be submitted within 48 hours. All other cases, reports must be submitted within 10 days. Reports must be submitted in the state where the accident occurred.

YACHTING REGULATIONS

It is the owner's responsibility to make sure that the yacht is in compliance with all federal, state, and local regulations. Check with your local U.S. Coast Guard office for relevant federal regulations. Your state's Department of Natural Resources may have some publications available that deal with relevant state laws.

GARBAGE

Dumping garbage into the sea is a worldwide problem. U.S. Coast Guard regulations prohibit dumping plastic refuse and garbage mixed with plastic into any waters, and restrict the dumping of other forms of garbage. IT IS ESSENTIAL THAT ALL YACHTERS HELP TO CLEAN OUR WATERWAYS BY PROPERLY DISPOSING OF ALL GARBAGE.

OIL

The Federal Water Pollution Control Act prohibits the discharge of oil or oily waste into or upon the navigable waters and contiguous zone of the United States. Violators are subject to a significant fine if such discharge causes a film or sheen upon or discoloration of the surface of the water, or causes a sludge or emulsion beneath the surface of the water.

SEPTIC WASTE

It is illegal to discharge septic waste directly overboard on U.S. inland and coastal waters. If an overboard discharge is installed, check with a local U.S. Coast Guard office to ensure that compliance is met with federal regulations.

STATE AND LOCAL ORDINANCES

State or locality may have laws limiting: speed, noise, or the yacht's wake. Check with the local harbor master if certain yachting operations are restricted by local ordinances or state laws. Check with state and local authorities to confirm compliance with local regulations regarding: marine sanitation, noise, speed, and wake.

Pre-Departure Actions:

- Check the weather. Make sure conditions and seas will not be hazardous during your outing.
- Make sure all safety equipment is onboard, accessible, and in good working condition.
- Check the bilge for fuel vapor or water. Ventilate or pump out the bilge as necessary.
- Make sure the horn, navigation equipment, and lights are working properly.
- Instruct guests and crew in safety and operational matters.
- Check engine oil, transmission oil, and coolant levels.
- After starting the engines, check:
    - The overboard flow of cooling water
    - Engine temperatures
    - Oil pressures
- Fill the fuel tanks as needed. Know the tank capacity and fuel consumption at various RPM's. Know the tank's cruising radius and fuel tank range. Typical tank usage: 1/3 of the supply to reach the destination, 1/3 to return, and keep1/3 in reserve for changes in plans due to weather or other circumstances.
- Have a second person onboard capable of taking over operating the yacht in case the operator is disabled.
- Before departing, inform a friend or relative of the intended cruising area, and the intended return time; so if delayed, the US Coast Guard can be contacted. Remember, to tell the contact person of your return to prevent false alarms. Do not file a float plan with the U.S. Coast Guard. The Coast Guard does not have the manpower to monitor all yachts.
- Stow all loose gear securely. Fenders and docklines should be stowed immediately after getting underway.

CARBON MONOXIDE (CO) WARNINGS

CO detectors are standard on all Marquis yachts. Have the detectors professionally calibrated at regular intervals.

DANGER

CARBON MONOXIDE (CO) IS A COLORLESS, ODORLESS, AND TASTELESS GAS EMITTED THROUGH ENGINE AND GENERATOR EXHAUST. PROLONGED EXPOSURE TO CO CAN RESULT IN UNCONSCIOUSNESS, BRAIN DAMAGE, AND DEATH.

CARBON MONOXIDE (CO) WILL CAUSE SERIOUS INJURY OR DEATH. STAY CLEAR FROM THE EXHAUST PORT WHEN THE ENGINE IS RUNNING.

PEOPLE SLEEPING ONBOARD CAN EASILY BE OVERCOME BY CARBON MON-

PREVENTING CO EXPOSURE

Open a forward hatch, porthole, or window to help prevent the accumulation of CO in the cabin and enclosed exterior areas. Creating air circulation allows air to travel through the yacht's interior. Have a trained marine technician inspect the exhaust systems when the yacht is in for service, or if a change in the sound of an engine or the generator is noticed. See CO Illustration above.

TO PREVENT SERIOUS INJURY OR DEATH BY ASPHYXIATION:

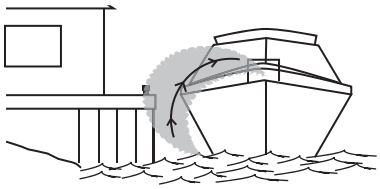
- Keep the engine room hatch closed when operating the engines and generator.
- Do not occupy aft lounging areas, including: the boarding platform, or swimming near the engine or generator exhaust outlets while the engines or generator are running.
- Minimize the time spent getting underway; CO production is greater when the engines are cold.
- Maintain the propulsion and generator engines to optimize efficiency, which reduces CO emissions.

For additional information on carbon monoxide and yachting, please contact marine organizations that produce safety publications.

For information on receiving a free VESSEL SAFETY CHECK, visit www.vesselsafetycheck.org or contact your local U.S. Coast Guard Auxiliary or United States Power Squadrons®.

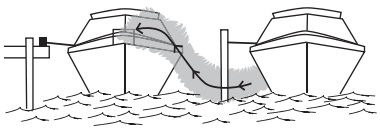
- U.S. Coast Guard Auxiliary: 1-800-368-5647 or on the Internet at: www.cgaux.org
- U.S. Power Squadrons: 1-888-FOR-USPS (1-888-367-8777) or on the Internet at: www.usps.org

The following chart displays possible situations where CO can accumulate. Become familiar with the following examples and the suggested precautions to help prevent CO2 poisoning.



Blockage of exhaust outlets can cause carbon monoxide to accumulate in the cabin and cockpit area; even when the hatches, windows, portholes, and doors are closed.

WARNING:
NEVER OPERATE THE GENERATOR WHILE THE YACHT IS MOORED AGAINST ANOTHER YACHT, DOCK, OR WALL STRUCTURE THAT COULD BLOCK THE EXHAUST OUTLET.



Exhaust from another vessel alongside your yacht, while docked or anchored, can emit poisonous CO gas inside the cabin and cockpit areas of your yacht.

WARNING:
BE ALERT FOR GENERATOR AND ENGINE EXHAUST FROM OTHER VESSELS ALONGSIDE YOUR YACHT. PROVIDE ADEQUATE VENTILATION.

The station wagon effect or back drafting can cause CO gas to accumulate inside the cabin, cockpit, and bridge areas when operating the yacht at a high bow angle or with improper or heavy loading.

WARNING:
PROVIDE ADEQUATE VENTILATION, REDISTRIBUTE THE LOAD OR BRING YOUR YACHT OUT OF HIGH BOW ANGLE. OPEN FORWARD HATCH OR WINDOW.

CO gas can accumulate in the cabin, cockpit and bridge areas when operating your yacht at slow speeds or when the yacht is stopped in the water. A tail wind can also increase accumulation (force of wind entering from aft section of yacht).

WARNING:
PROVIDE ADEQUATE VENTILATION OR SLIGHTLY INCREASE SPEED IF POSSIBLE. OPEN FORWARD HATCH OR WINDOW.

The station wagon effect or back drafting can cause CO gas to accumulate: inside the cabin, under protective weather coverings, cockpit, or bridge areas when the yacht is underway.

WARNING:
PROVIDE ADEQUATE VENTILATION WHEN THE CANVAS TOP, SIDE OR BACK CURTAINS ARE IN THE CLOSED, PROTECTIVE POSITIONS. OPEN FORWARD HATCH OR WINDOW.

IDENTIFYING CO EXPOSURE

IN HIGH CONCENTRATIONS, CO CAN BE FATAL IN MINUTES. However, the effects of lower concentrations can also be lethal. Symptoms of exposure to CO are:

- Watering and itchy eyes
- Throbbing temples
- Inability to think coherently
- Ringing in the ears
- Headache
- Incoherence / slurred speech
- Flushed appearance
- Inattentiveness
- Loss of physical coordination
- Tightness across the chest
- Drowsiness
- Nausea
- Dizziness
- Vomiting
- Fatigue
- Collapse
- Convulsions

TREATING CO EXPOSURE

If suspected that someone is suffering from CO exposure, take the following actions immediately:

- Thoroughly ventilate the area if possible
- Evacuate the area and move the affected person(s) to a fresh air environment
- Administer oxygen, if available
- Get medical assistance
- Determine the probable source of the CO and correct the condition.

OTHER HEALTH AND SAFETY INFORMATION

WARNING

CANCER, BIRTH DEFECTS, AND OTHER REPRODUCTIVE HARM ARE KNOWN BY THE STATE OF CALIFORNIA TO BE CAUSED BY CHEMICALS EMITTED FROM ENGINE EXHAUST, ENGINE EXHAUST CONSTITUENTS, AND A VARIETY OF COMPONENTS.

CANCER, BIRTH DEFECTS, AND OTHER REPRODUCTIVE HARM ARE KNOWN BY THE STATE OF CALIFORNIA TO BE CAUSED BY CHEMICALS CONTAINED OR EMITTED BY OILS, FUELS, AND FLUIDS CONTAINED IN YACHTS AS WELL AS WASTE PRODUCED BY COMPONENT WEAR.

CAUTION

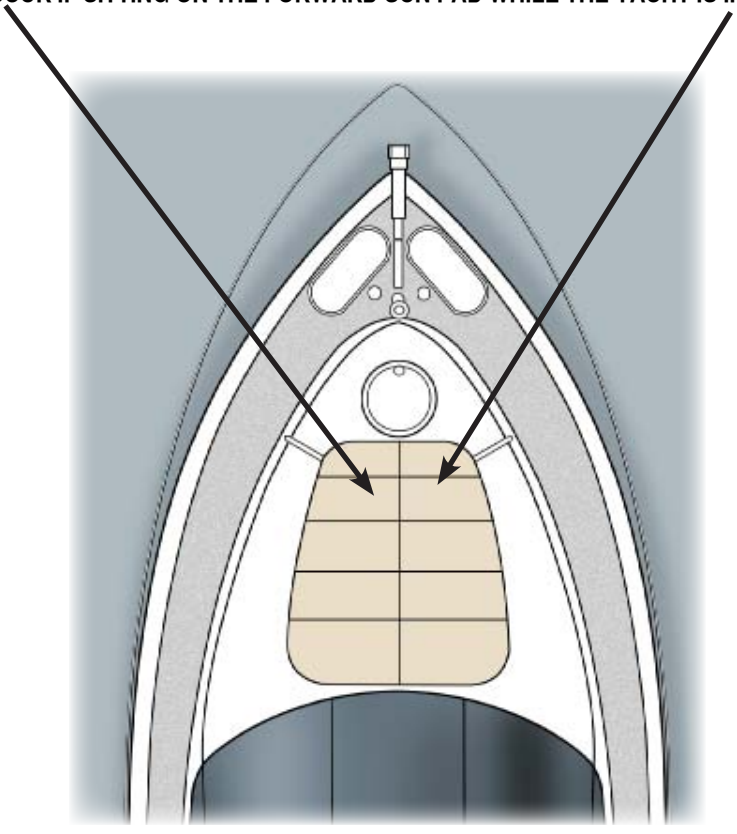
ALWAYS WASH YOUR HANDS, THOROUGHLY, WITH SOAP AND WATER TO PROTECT YOUR SKIN. BATTERY POSTS, TERMINALS, AND RELATED ACCESSORIES CONTAIN LEAD AND LEAD COMPOUNDS. WASH HANDS AFTER HANDLING USED ENGINE OIL CONTAINS CHEMICALS THAT HAVE CAUSED CANCER IN LABORATORY ANIMALS.

WARNING LABELS

Warning labels are posted throughout the yacht to protect everyone onboard, the yacht, the yacht's equipment, and any personal property onboard. It is important to read, understand, and obey all warning labels. Failure to obey a warning label may result in serious injury or damage to the yacht, the yacht's equipment, or any personal property on the yacht.

WARNING

DO NOT SIT ON THE FORWARD SUN PAD WHILE THE YACHT IS IN MOTION. INJURY, FALLING OVERBOARD, OR LOSS OF BALANCE CAN OCCUR IF SITTING ON THE FORWARD SUN PAD WHILE THE YACHT IS IN MOTION.



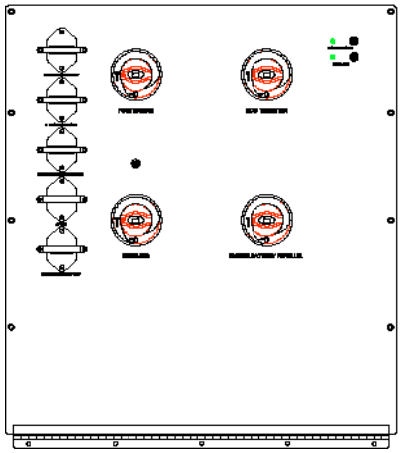
DC Electrical System

A 24-volt DC (Direct Current) electrical system is equipped on the yacht. The DC system is a comprehensive system designed to meet present and future 24-volt electrical needs. Wire-runs and connections are positioned to prevent abrasion and exposure to moisture, as well as to remain accessible for inspection, repairs, and the addition of aftermarket electrical accessories.

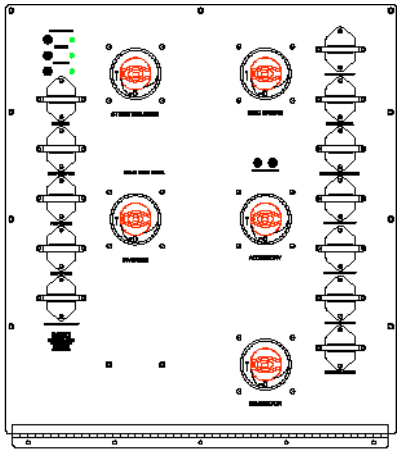
Wires used throughout the DC electrical system are plastic coated and color-coded. Connections are made, using crimped connector points. The electrical system is virtually maintenance free, with only the batteries requiring periodic inspection and maintenance.

MASTER DISCONNECT SWITCHES

Master disconnect switches control electricity from the batteries to the DC bus distribution panel, engines, and accessories. The master disconnect switches are located in the engine room on the STDB and PORT aft bulkheads. Turn the master disconnect switch to the ON position to provide electricity to the DC Bus Distribution Panel. Circuit breakers on the DC bus distribution panel control the flow of electricity to the other DC circuit breaker panels.



PORT Master Disconnect Panel

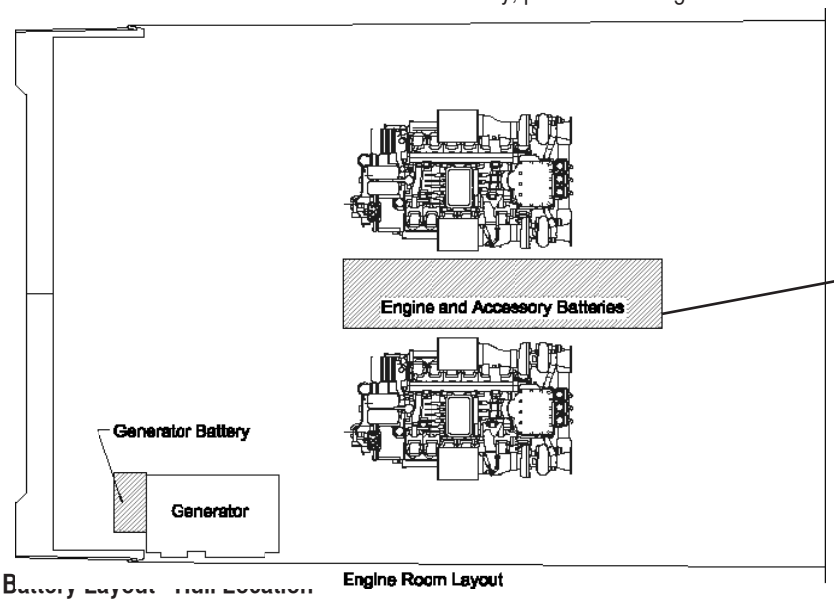


STBD Master Disconnect Panel

BATTERIES

The DC electrical system is divided into three areas, each powered by one or more, 12-volt batteries:

- Engine, Bow, and Stern: Four 12 Volt batteries (two for each engine, batteries also supply power to Bow and Thruster)
- Accessory: Four 12-volt batteries, located at each bank parallel connected to produce 12-volts
- Generator: One 12-volt battery, placed at aft of generator



Engine Room Layout

Battery Detail (4 shown, 8 total)

ENGINE BATTERIES

Each propulsion engine has a designated pair of batteries connected to generate 24 volts DC. The engine batteries are located in the center of the engine room between the engines. (See previous page for illustration)

A master disconnect switch controls the Electricity from each battery to the battery's designated engine. The switches are located in the engine room, aft bulkhead. Turn ON the master disconnect switches to provide electricity to the engines. (See the previous page for illustration)

The engine battery pairs share electricity with one another. The third master disconnect switch labeled, *Engine Battery Parallel* controls the flow of electricity between the two battery pairs. The master disconnect switch is located in the engine room on the PORT aft bulkhead. The engines use electricity from both engine battery pairs when the master disconnect switch is turned ON. This is useful if one engine battery fails: the engine can still be started by using electricity from the other engine's battery pair.

Refer to Section 9: *Engine Room* for the exact location of the engine batteries.

BOW AND STERN THRUSTER BATTERIES

The thrusters use the same batteries as the engines. The bow thruster is powered by the PORT engine batteries; the stern thruster is powered by the STDB engine batteries.

Electricity from each battery pair to the designated thruster is controlled by a master disconnect switch. The switches are located in the engine room near the base of the aft PORT and STDB bulkheads. Turn ON the thruster's master disconnect switch to provide electricity to each thruster.

ACCESSORY BATTERY BANK

The accessory equipment is controlled by the three DC circuit breaker panels (DC Bus Distribution Panel, DC Distribution Panel, and the Bridge Breaker Panel). All three panels are powered by a bank of two batteries, connected to provide 24-volts DC. The batteries are located in the engine room at the base of the aft bulkhead. (See previous page for illustration)

Electricity from the batteries is controlled by a master disconnect switch. The switch is located in the engine room on the aft bulkhead. Turn ON the master disconnect switch to provide electricity to the DC Bus Distribution Panel. Circuit breakers on the DC Bus Distribution Panel control the flow of electricity to the other DC circuit breaker panels.

Refer to Section 9: *Engine Room* for the exact location of the Accessory batteries.

GENERATOR BATTERIES

The generator has a dedicated battery. Electricity from the battery to the generator starter is controlled by a master disconnect switch (same as the battery disconnect on previous page). The switch is located in the engine room in the STDB bilge compartment. Turn ON the master disconnect switch to provide electricity to the generator starter.

Refer to Section 9: *Engine Room* for the exact location of the Generator battery and dedicated master disconnect switch.

Monitoring Battery Voltage Levels

A fully charged single 12 Volt battery that has not been charged or discharged for at least two hours should indicate between 12.3 and 12.6 volts. A fully charged 24 Volt battery pair that has not been charged or discharged for at least two hours should indicated a reading between 26 - 28 Volts. A reading below 26 - 28 Volts indicated a partially charged battery.

ENGINE BATTERIES

The voltage level of each engine battery pair is determined by activating the battery's dedicated voltmeter. The voltmeters are located at each helm. For each engine, a single LCD display provides information on engine temperature, oil pressure, and battery voltage level. To activate each engine's voltmeter, turn the engine's ignition key one position to the right.

NOTE: It is not necessary to start the engine to activate the fuel gauge. Refer to the OEM information for details on operating the engines.

Gauge Panel needs to be cycled to voltmeters and the engines at idle to indicate a correct running volt.

DANGER

BEFORE STARTING THE ENGINES, FOLLOW THE PROCEDURES DESCRIBED IN SECTION 5. IMPROPERLY STARTING THE ENGINES CAN BE HAZARDOUS

ACCESSORY BATTERY BANK

The voltage level of the accessory batteries is determined by using the voltmeter located on the DC Bus Distribution Panel (Engine Room, aft bulkhead) and DC Distribution Panel (Salon Aft Cabinet).

ACTIVATING THE VOLTMETER:

1. Turn ON the Accessory battery bank master disconnect switch, labeled ACCESSORY, located on the STBD Aft Bulkhead.
2. Switch ON all three circuit breakers labeled, DC MAIN BREAKER DC BUS; all located on the DC Bus Distribution Panel (Engine Rm, aft bulkhead).
3. Switch ON the circuit breaker labeled, PANEL MAIN located on the DC Distribution Center, panel is located in Salon PORT Aft.

Charging the Batteries

While the engines are running, the alternators generally supply enough power to replace the power used by the yacht's DC equipment.

The PORT engine is equipped with an alternator that charges the 12-volt accessory battery bank. The DC equipment will eventually drain the batteries being used without the PORT engine running.

IF THE BATTERIES GET DRAINED, either:

1. Start the PORT engine or use the onboard battery chargers to recharge the batteries.
2. If not connected to shore power, run the generator to activate the battery chargers.

NEVER

NEVER ALLOW THE YACHT'S BATTERIES TO BECOME COMPLETELY DISCHARGED. COMPLETELY DISCHARGING A BATTERY CAN DAMAGE IT SO THAT THE BATTERY CAN NO LONGER BE RECHARGED.

THE BATTERY CHARGER SHOULD ALWAYS BE OPERATING WHEN THE YACHT IS CONNECTED TO SHORE POWER. TURN ALL BATTERY MASTER DISCONNECT SWITCHES TO THE OFF POSITION IF THE YACHT IS UNOCCUPIED FOR AN EXTENDED PERIOD OF TIME AND IF THE YACHT IS NOT CONNECTED TO SHORE POWER.

BATTERY CHARGERS

Five battery chargers are equipped onboard.

- A 25 amp battery charger monitors the voltage levels generator batteries
- Two 80 amp battery chargers monitor the engine batteries
- A 100 amp battery charger monitors the voltage levels of the accessory batteries
- An additional 100 Inverter/Charger monitors the voltage levels of the accessory batteries

Each charger monitors and maintains the voltage levels of one or more batteries. When the chargers are ON, they automatically charge the attributing battery when the voltage drops below the manufacturers specified level. Each chargers is mounted on the Engine Room STBD Aft bulkhead.

ENGINE/THRUSTER BATTERY CHARGERS

Two battery chargers monitor each pair of engine batteries. The engine battery chargers are located in the engine room on the STBD aft bulkhead. Refer to Section 9: *Engine Room* for the exact location of the battery chargers.

OPERATING THE ENGINE/THRUSTER BATTERY CHARGERS:

1. Provide AC power to the yacht. Power should be generated from either the onboard generator or a shore power source. Refer to Section 3: *Shore Power* and/or *Generator Power* for more information.
2. Locate the AC Bus 1 Distribution Panel, panel is located in the Engine Room, aft bulkhead.
   - 2a. Switch ON the AC MAIN Breaker, located on the AC Bus 1 Distribution Panel
   - 2b. Switch ON the PORT ENGINE BATTERY CHARGER circuit breakers
   - 2c. Switch ON the STBD ENGINE BATTERY CHARGER circuit breakers

ACCESSORY BATTERY CHARGER

The voltage levels of both accessory batteries are monitored and maintained by a single battery charger. The accessory battery charger is located in the engine room on the STBD aft bulkhead. Refer to Section 9: *Engine Room* for the battery charger exact location.

OPERATING THE ACCESSORY BATTERY CHARGER:

1. Provide AC power to the yacht. Power should be generated from either: the onboard generator, or a shore power source. Refer to Section 3: *Shore Power* and/or *Generator Power* for more information.
2. Locate the AC Bus 1 Distribution Panel, panel is located in the Engine Room, aft bulkhead.
   - 2a. Switch ON the AC MAIN Breaker, located on the AC Bus 1 Distribution Panel
   - 2b. Switch ON the ACCESSORY BATTERY CHARGER circuit breaker

WARNING

THE MAIN SAFETY BATTERY SHUT OFF SWITCH MUST BE IN THE ON POSITION TO CHARGE THE 24-VOLT ACCESSORY BATTERY BANK. CONDITION APPLIES TO THE ACCESSORY BATTERY BANK ONLY. THE ACCESSORY SAFETY MAIN SWITCH IS LOCATED ON THE AC CONTROL PANEL NEXT TO THE STAIRWAY IN THE SALON.

GENERATOR BATTERY CHARGER

The voltage levels of the generator battery is monitored and maintained by a single battery charger. The Generator battery charger is located in the engine room on the STBD aft bulkhead. Refer to Section 9: *Engine Room* for the battery charger exact location.

OPERATING THE GENERATOR BATTERY CHARGER:

1. Provide AC power to the yacht. Power should be generated from either the onboard generator or a shore power source. Refer to Section 3: *Shore Power* and/or *Generator Power* for more information.
2. Locate the AC Bus 1 Distribution Panel, panel is located in the Engine Room, aft bulkhead.
   - 2a. Switch ON the AC MAIN Breaker, located on the AC Bus 1 Distribution Panel
   - 2b. Switch ON the GENERATOR BATTERY CHARGER circuit breaker

INVERTER/BATTERY CHARGER

The inverter/battery charger is designed to convert DC electricity from the accessory batteries to AC electricity on a limited basis, aside from charging the accessory batteries. When AC power is not provided to the yacht, the inverter is designed to operate specific equipment onboard that requires AC electricity. The inverter is located in the engine room on the PORT aft bulkhead. Refer to Section 9: *Engine Room* for the exact location of the inverter.

The inverter operates the following equipment:

- Salon entertainment center
- Galley refrigerator and freezer
- Optional bridge refrigerator or ice maker
- Pressure water pump
- Optional bridge wet bar refrigerator
- Optional bridge wet bar refrigerator
- Optional bridge wet bar ice maker
- Optional master stateroom entertainment center

USING THE INVERTER TO OPERATE EQUIPMENT:

1. Switch ON the Inverter Master Disconnect Switch, located on the STBD aft bulkhead. Turning ON the master disconnect switch allows electricity to flow from the accessory batteries to the inverter.
2. Switch ON the ON/OFF switch located on the side of the inverter.
3. Place the Invert Bypass Switch, located below the inverter to the INVERTER position
4. Locate the AC Bus 1 Distribution Panel, panel is located in the Engine Room, aft bulkhead.
   - 4a. Switch ON the AC MAIN Breaker.
   - 4b. Switch ON the INVERTER circuit breaker.
5. Locate the AC Distribution Panel (Salon aft). Switch ON the following circuit breakers:
   - Pressure Water Pump
   - Refrigerator
   - Exterior Refrigerator
   - Exterior Icemaker
   - Entertainment Center Salon
   - Entertainment Center Master Stateroom

CAUTION

IF THE INVERTER FAILS, THE INVERTER BYPASS SWITCH MUST BE TURNED FROM ITS NORMAL INVERT POSITION TO THE BYPASS POSITION. CONDITION APPLIES EVEN IF CONNECTED TO SHORE, AC POWER OR IF THE GENERATOR IS BEING USED TO SUPPLY AC POWER TO THE REFRIGERATION AND ENTERTAINMENT EQUIPMENT.

NOTE: Using the inverter to power AC equipment will eventually discharge the Accessory batteries. The inverter auto matically shuts off if the battery voltage level decreases below 21 volts. If the inverter shuts off, any AC equip ment operating from the inverter also shuts off. Charge the batteries as described earlier in this section if the inverter and attributing equipment shuts off.

DANGER

DEATH OR SERIOUS INJURY FROM ELECTRICAL SHOCK MAY OCCUR BY FAILURE TO SWITCH OFF THE INVERTER ON/OFF SWITCH BEFORE SERVICING THE DC OR AC ELECTRICAL SYSTEM. THE INVERTER SWITCH IS LOCATED ON THE INVERTER SIDE. DISCONNECT THE BATTERY LEADS TO THE INVERTER.

Battery Maintenance

DANGER

THE BATTERIES CONTAIN AN ACID CALLED ELECTROLYTE. WEAR GLOVES AND PROTECTIVE EYE WEAR WHEN WORKING ON AND AROUND THE BATTERIES. AVOID CAUSING DAMAGE THAT COULD SPILL ELECTROLYTE INTO THE ENGINE ROOM OR BILGE WHEN SERVICING THE BATTERIES. AVOID GETTING SALTWATER IN OR ON THE BATTERY. EITHER CONDITION CAN CREATE A POISONOUS GAS THAT IS HARMFUL IF INHALED.

IF THE BATTERY IS DAMAGED AND ELECTROLYTE GETS SPILLED:

1. Ventilate the area of the spill.

2. Neutralize the acid in the electrolyte by pouring baking soda on the spill.
3. Remove the neutralized electrolyte, using a disposable rag or paper towel.
4. Replace damaged/leaking battery.

Batteries are relatively maintenance free; however, to increase the batteries effectiveness and life perform the following:

- Keep the batteries fully charged at all times. Batteries that are kept fully or near fully charged last longer than batteries stored with a partial charge. The charge level of the batteries can be monitored using the voltmeters on the helm instrument panel (engine batteries) or tribulation panel (accessory batteries).
- Inspect the batteries at least once every 30 days for corrosion, loose wiring, dirt, etc.

WARNING

DISCONNECT THE BATTERIES BEFORE CLEANING.

- Periodically clean the battery terminals and cable connections. Remove any accumulation of dirt on the top of the battery case. Use a wire brush to clean the terminals. Coating the terminals with a terminal protecting product will help reduce corrosion that can form in these areas.
- Make sure the battery cables are securely attached to the terminal posts. Tighten the terminal nuts snugly using a torque wrench, to 20ft/lbs.
- Remove the batteries from the yacht during periods of extended storage in freezing climate areas. Store the batteries in a cool (above freezing temperature), dry area. All batteries lose some charge during storage, but the lower the temperature the less charge is lost. Avoid storing the batteries in a humid place.
- Check the battery charge level once every three months using a hydrometer or installed voltmeter. Charge the battery if the specific gravity of the battery is less than 1.225 or the voltage is less than 24 Volts. AVOID OVERCHARGING THE BATTERIES.

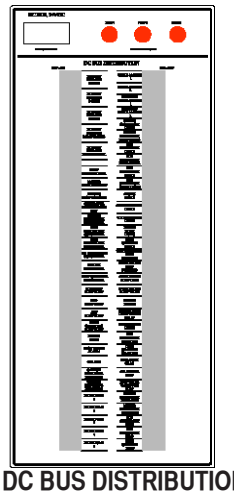
NOTE: Batteries are maintenance free. Electrolyte CANNOT be checked.

OPERATING THE DC EQUIPMENT

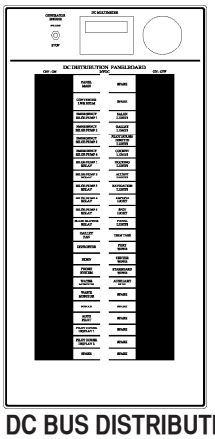
Power to the DC components is controlled by circuit breakers and individual controls for each component.

Three DC circuit breaker panels are equipped on the yacht:

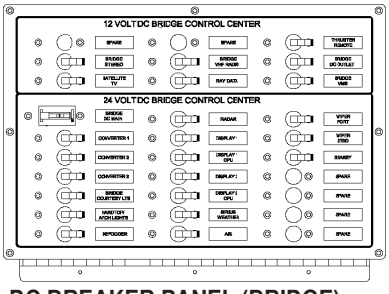
- DC Bus Distribution Panel (Engine Room)
- DC Distribution Panel (Salon)
- Bridge Breaker Panel (Bridge)



DC BUS DISTRIBUTION PANEL (ENGINE ROOM)



DC BUS DISTRIBUTION PANEL (SALON AFT)



DC BREAKER PANEL (BRIDGE)

The circuit breakers on the DC Control Center enables the user to control the DC components by switching the breakers ON or OFF. All of the circuit breakers protect the electrical system by automatically disconnecting the circuit from the power source in the event of a short or overload. Power is supplied to the circuit breaker panels by the accessory batteries.

Thermal circuit breakers are also installed in many circuits to provide added protection.

NOTE: If a circuit breaker location is labeled, but no circuit breaker is present, the component named on the label is an option that is not installed.

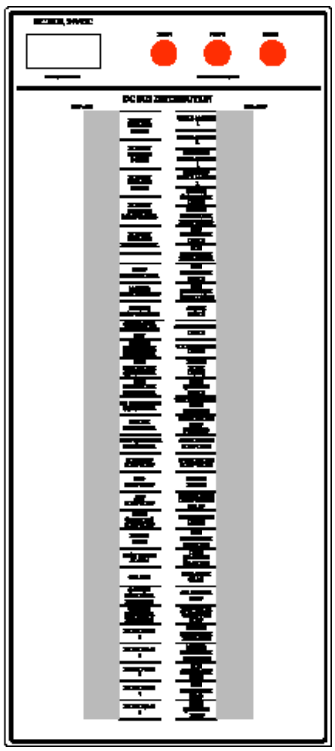
DC Bus Distribution Panel

NEVER

NEVER RESET A BREAKER OR REPLACE A FUSE THAT HAS AUTOMATICALLY TRIPPED WITHOUT FIRST CORRECTING THE PROBLEM. FAILURE TO MAKE NECESSARY CORRECTIONS MAY CREATE A DANGEROUS SITUATION.

PROVIDING POWER TO THE DC BUS DISTRIBUTION PANEL:

1. Turn ON the Accessory battery bank master disconnect switch. The master disconnect switch is located in the engine room on the STDB aft bulkhead.
2. Locate the DC Bus Distribution Panel, panel is located in the Engine Room, aft bulkhead.
   2a. Switch ON the DC MAIN Breaker, located on the DC Bus Distribution Panel



DC BUS DISTRIBUTION PANEL BREAKERS

The DC Bus Distribution Panel contains the switches, gauges, and circuit breakers described below. Additional controls, switches, and meters are equipped on the panel that are explained in the vendors OEM information. The DC Bus Distribution Panel manages most of the yacht's DC power system, and controls the flow of electricity to the DC Control Center and various safety systems. The DC Bus Distribution Panel is located in the engine room on the forward bulkhead.

THE SAFETY SYSTEM BREAKERS INCLUDE:

- Forward Sump Pump, Mid Sump Pump, and Aft Sump Pump
- High Water Alarm
- CO Detectors
- Bilge Pump 1 - Bilge Pump 5

CAUTION

THE SAFETY SYSTEM CIRCUIT BREAKERS SHOULD REMAIN ON AT ALL TIMES DUE TO THE IMPORTANCE OF THE SAFETY SYSTEMS.

IF A SAFETY SYSTEM CIRCUIT BREAKER TRIPS:

1. **IMMEDIATELY IDENTIFY AND CORRECT THE CAUSE OF THE PROBLEM**
2. **RESET THE BREAKER**

DC DISTRIBUTION BUS PANEL BREAKERS:

4TH STATEROOM CONVERTER

The 4th Stateroom Converter breaker controls the converter that powers the optional DVD player and stereo in the 4th stateroom. The converter changes 24-volt DC electricity to the 12-volt DC electricity required by the DVD player. Switch ON the breaker to supply power to the converter.

AFT SUMP PUMPS

The Aft/Midships Sump Pumps breakers control the aft and midships sump pumps. Switch ON the breakers before using anything that drains into the sumps. The sump pump is activated automatically by a float switch when water within the sump rises above the manufacturer's specified level.

BILGE BLOWER PORT AND STDB

The Bilge Blower PORT and Bilge Blower STBD breakers control the Bilge Blower Relay circuit breaker on the DC Bus Distribution Panel. The Bilge Blower Relay breaker controls the bilge blower switch at both helms. Switch all three breakers ON, Bilge Blower PORT, Bilge Blower STBD, and Bilge Blower Relay to activate the controls. Use the controls to manually operate the bilge blowers. The bilge blowers also operate automatically when the STDB engine ignition switch is turned ON.

BILGE PUMP 1 - BILGE PUMP 5

The Bilge Pump 1 - Bilge Pump 5 breakers control the automatic bilge pumps. Each pump is automatically activated by a float switch when water in the bilge rises above the pump manufacturer's specified level. All five bilge pump breakers must be ON when the yacht is in the water.

NOTE: Periodically test each bilge pump by lifting the pump's float switch. The pump should turn ON when the float switch is lifted.

BOW STATEROOM HEAD

The Bow Stateroom Head breaker controls the electric pump that flushes the toilet in the VIP head. Pressing the button on the bulk-head next to the toilet flushes the toilet. Refer to Section 4: *Toilets* and the OEM information for details on operating the toilet.

BOW STATEROOM CONVERTER

The Bow Stateroom Converter breaker controls the converter that powers the optional DVD player and stereo in the VIP stateroom. The converter changes 24-volt DC electricity to the 12-volt DC electricity required for the DVD player. Switch ON the breaker to supply power to the converter.

BOW STATEROOM HEAD FAN

The Bow Stateroom Head Fan breaker controls the exhaust fan switches in the VIP head and guest head.

CABLEMASTER SHORE 1 AND CABLEMASTER SHORE 2

The Cablemaster Shore 1 and Cablemaster Shore 2 breakers control the aft Shore 1 and Shore 2 Cablemaster's motors and transom-mounted controls. Refer to the OEM information for details on operating the Cablemaster. Refer to the vendor literature for more information on the shore circuit.

CARBON MONOXIDE DETECTOR

Several carbon monoxide (CO) detectors have been installed onboard for passenger safety. The CO detectors continuously check the air in the yacht's cabin for the presence of carbon monoxide. The breakers must be ON for the CO detectors to operate.

DANGER

ALWAYS ACTIVATE THE CO DETECTORS WHEN THE ENGINES OR GENERATOR ARE RUNNING. CARBON MONOXIDE IS DANGEROUS.

For information on minimizing, detecting, and controlling carbon monoxide accumulation Refer to Section 1: Carbon Monoxide (CO) Warnings.

The CO Detectors alert passengers to the presence of carbon monoxide in the cabin. The detectors emit a loud, high-pitched sound when activated. If the alarm sounds, determine the cause of the CO accumulation, and correct the problem immediately.

Test each unit on a weekly basis. Locate the test button on each CO detector. If suspected that the CO detector is faulty, have your

dealer repair the detector or replace the detector immediately.

Refer to Section 1: *Carbon Monoxide (CO) Warnings* for more information on CO.

CREW QUARTERS HEAD

The Crew Quarters Head breaker controls the electric pump that flushes the toilet in the optional crew quarters head. Pressing the button on the bulkhead next to the toilet flushes the toilet. Refer to Section 4: *Toilets* and the OEM information for details on operating the toilet.

CREW QUARTERS HEAD FAN

The Crew Quarters Head Fan breaker controls the exhaust fan switch in the optional crew quarters head.

CREW QUARTERS CONVERTER

The Crew Quarters Converter breaker controls the converter that powers the optional DVD player and stereo in the crew quarters. The converter changes 24-volt DC electricity to the 12-volt DC electricity required by the DVD player. Switch the breaker ON to supply power to the converter.

CREW QUARTERS SUMP PUMP

The Crew Quarters Sump Pump breaker controls the sump pump for the lazarette storage/crew quarters. The sump pump is activated automatically by a float switch when water within the sump rises above the pump manufacturer's specified level. Refer to Section 4 - *Grey Water* for a description of the lazarette storage/crew quarters sump system.

DC MAIN BREAKER DC BUS (3 TOTAL)

All three breakers labeled DC Main Breaker DC Bus control groups of other circuit breakers on the DC Bus panel. For a description of the breaker group, refer to the vendor literature.

DC MAIN BREAKER SALON PANEL

The DC Main Breaker Salon Panel breaker controls the DC Distribution Panel.

DC MAIN BREAKER BRIDGE PANEL

The DC Main Breaker Bridge Panel breaker controls the Bridge Breaker Panel.

FORWARD CABLEMASTER 1 and FORWARD CABLEMASTER 2

The Forward Cablemaster 1 and 2 breakers control the forward Shore 1 and Shore 2 Cablemaster's motors and forward-mounted controls. Refer to the OEM information for details on operating the Cablemaster. Refer to the vendor literature for more information on the Shore circuit.

FORWARD SUMP PUMP

The Forward Sump Pump breaker controls the forward sump pump. The sump pump is activated automatically by a float switch when water within the sump rises above the pump manufacturer's specified level. Refer to Section 4: *Grey Water* for a description of the forward sump system.

FUEL SIGHT GLASS

The Fuel Sight Glass breaker controls the gauge that displays the level of fuel in each of the engine's tank. The Fuel Sight Glass gauge is located on the side of the fuel tank.

GENERATOR COMPARTMENT FAN

The Generator Compartment Fan breaker controls the fan system in the STDB bilge compartment. With the breaker turned ON, the fan operates when the generator runs, to remove excess heat from the STDB bilge compartment.

HIGH WATER ALARM

The High Water Alarm breaker controls the high bilge water alarm. Refer to Section 4: *Bilge System* for a description of the high bilge water alarm.

LIGHTS (ALL):

MASTER STATEROOM LIGHTS, MASTER STATEROOM HEADLIGHTS, BOW STATEROOM LIGHTS, BOW STATEROOM HEADLIGHTS, SIDE STATEROOM LIGHTS, SIDE STATEROOM HEADLIGHTS, ACCENT LIGHTS, COMPANIONWAY LIGHTS, 4TH STATEROOM LIGHTS, ENGINE ROOM LIGHTS, CREW QUARTERS LIGHTS:

The LIGHTS breakers control the various light switches throughout the yacht.

MASTER HEAD PORT AND MASTER HEAD STDB

The Master Head PORT and Master Head STDB breakers control the electric pumps that flushes the toilets in the master head. Pressing the button, located on the bulkhead next to the toilet, flushes the toilet. Refer to Section 4: *Toilets* and the OEM information for details on operating the toilet.

MASTER STATEROOM CONVERTER

The Master Stateroom Converter breaker controls the converter that powers the optional DVD player and stereo in the master stateroom. The converter changes 24-volt DC electricity to the 12-volt DC electricity required to power the DVD player. Switch ON the breaker to supply power to the converter.

MASTER STATEROOM HEAD PORT

The Master Stateroom Head PORT breaker controls the electric pump that flushes the toilet in the Master Stateroom Head, located on the PORT side. Pressing the button, located on the bulkhead next to the toilet, flushes the toilet. Refer to Section 4: *Toilets* and the OEM information for details on the toilet's operation.

MASTER STATEROOM HEAD STBD

The Master Stateroom Head STBD breaker controls the electric pump that flushes the toilet in the Master Stateroom Head, located on the STBD side. Pressing the button, located on the bulkhead next to the toilet, flushes the toilet. Refer to Section 4: *Toilets* and the OEM information for details on the toilet's operation.

MASTER STATEROOM LIGHTS

The Master Stateroom Lights breaker controls the lights mounted in the Master Stateroom.

MID SUMP PUMP

The Mid Sump Pump breaker controls the sump pump located beneath the forward hatch in the Forward Master Stateroom Sole.

OIL CHANGE PUMP

The Oil Change Pump breaker controls the oil change system. The oil change system assists in changing the propulsion engine, V-drive, and generator engine oil. The oil change system is located in the engine room on the STDB aft bulkhead. Refer to the OEM information for details on operating the system.

OVERBOARD DISCHARGE PUMP CREW QUARTERS

The Overboard Discharge Pump Crew Quarters breaker controls the waste pump switch for the optional overboard discharge system for the optional crew quarters head. Use the waste pump to empty the waste tank directly overboard. Refer to Section 4: *Overboard Discharge* for information on using the pump.

OVERBOARD DISCHARGE PUMP FORWARD

The Overboard Discharge Pump Forward breaker controls the waste pump switch for the optional overboard discharge system for the master head, VIP head, and guest head. Use the waste pump to empty the waste tanks directly overboard. Refer to Section 4: *Overboard Discharge* for information on using the pump.

OVERBOARD DISCHARGE PUMP VALVE

The Overboard Discharge Pump Valve controls the electric Y Valve located in the Master Stateroom. Refer to Section 4: *Overboard Discharge* for information on using the valve.

POWER DOOR

The Power Door breaker controls the motor that opens and closes the side deck door. The power door allows direct access between the pilothouse and the STDB side deck. Controls for the motor are located next to the door in both the cabin and on the side deck.

RAW WATER WASHDOWN PUMP

The Raw Water Washdown Pump breaker controls the bow and transom raw water washdown pump. When finished using the washdown, turn the washdown pump OFF by switching OFF the Raw Water Washdown Pump breaker. Refer to Section 4: *Raw Water Washdowns* for information on using the washdowns.

SEAKEY® (OPTION)

The Seakey breaker controls the SeaKey telemetric equipment. The telemetric equipment is activated with a current service subscription. If a subscription is purchased, the breaker must be ON to provide electricity to the equipment. Refer to the OEM information for details on the SeaKey equipment.

SIDE HEAD

The Side Head breaker controls the electric pump that flushes the toilet in the guest head. Pressing the button, located on the bulkhead next to the toilet, flushes the toilet. Refer to Section 4: *Toilets* and the OEM information for details on operating the toilet.

SIDE STATEROOM CONVERTER

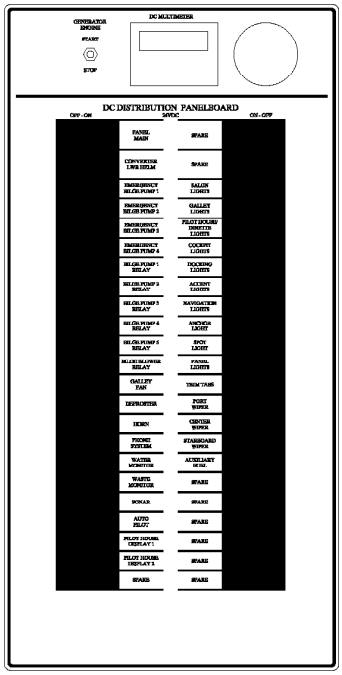
The Side Stateroom Converter breaker controls the converter that powers the optional DVD player and stereo in the guest stateroom. The converter changes 24-volt DC electricity to the 12-volt DC electricity required by the DVD player. Switch this breaker ON to supply power to the converter.

STEREO RELAYS

The Stereo Relays breaker controls the stereo relays that provide power to the stereo. The stereo relay is located next to the stereo.

WASTE MONITOR CREW QUARTERS

The Waste Monitor Crew Quarters breaker controls the waste monitoring system for the optional crew quarters' head.



DC DISTRIBUTION PANEL (SALON)

The DC Distribution Panel manages the power supply to the DC components listed on the panel. The DC panel is located in a cabinet in the aft PORT corner of the salon, and contains the circuit breakers described in this section. The panel also contains additional controls and meters, described in the vendor literature.

AUTO PILOT (OPTION)

The Auto Pilot breaker controls the flow of electricity to the optional automatic piloting system. Switch the Auto Pilot breaker ON to supply power to the auto pilot. Refer to the OEM information for details on operating the auto pilot.

AUXILIARY FUEL TANK GAUGE AND SWITCH

The Auxiliary Fuel Tank Gauge And Switch breaker indicates the amount of fuel in the optional auxiliary fuel tank.

BILGE BLOWER RELAY

The Bilge Blower Relay breaker controls the relay for the bilge blower. The bilge blower switch at the helm is connected to a relay, which operates the blowers.

BILGE PUMP RELAY 1 - BILGE PUMP RELAY 5

The Bilge Pump Relay breakers control the relays for the automatic bilge pumps. Each bilge pump switch at the helm is connected to a relay that operates the switch's designated bilge pump.

CONVERTER LOWER HELM

The Converter Lower Helm breaker controls the converter that powers various equipment at the pilothouse helm. The converter changes 24-volt DC electricity to the 12-volt DC electricity required by the equipment.

DEFROSTER

The Defroster breaker controls the switch for all of the pilothouse's windshield defoggers.

EMERGENCY BILGE PUMP 1 - EMERGENCY BILGE PUMP 4

The Emergency Bilge Pump breakers control the emergency bilge pumps. The emergency bilge pumps operate continuously when the breakers are switched ON.

GALLEY FAN

The Galley Fan breaker controls the exhaust fan switch in the galley.

HORN

The Horn breaker controls the flow of electricity to the switch that operates the horns.

LIGHTS (All)**: SALON LIGHTS, GALLEY LIGHTS, PILOTHOUSE LIGHTS, COCKPIT LIGHTS, DOCKING LIGHTS, ACCENT LIGHTS, NAVIGATION LIGHTS, ANCHOR LIGHT, SPOT LIGHT, PANEL LIGHTS**

The Lights breakers control the various light switches throughout the yacht.

PANEL MAIN

The Panel Main breaker controls the other circuit breakers on the DC Distribution panel.

PHONE SYSTEM

The Phone System breaker controls the yacht's telephone system.

USING THE ONBOARD TELEPHONE:

1. Connect a shore telephone line to the phone connector located in the shore connectors locker either in the PORT transom or on the fore deck.
2. Connect a telephone to each of the phone jacks chosen, to use in the yacht. A phone jack is located in each of the following locations: Salon, Pilothouse, VIP Stateroom, Bridge Helm, and two jacks are available in the Master Stateroom.
3. Switch ON the Phone System breaker. The onboard phones operate the same as a home phone.

PILOTHOUSE DISPLAY 1 and PILOTHOUSE DISPLAY 2

The Pilothouse Display 1 and Pilothouse Display 2 breakers control the display for the navigational system displays at the helm. Refer to the OEM information for details on operating the helm navigational system.

SONAR (OPTION)

The Sonar breaker controls the flow of electricity to the optional sonar system. Switch ON the breaker to supply power to the sonar. Refer to the OEM information for details on operating the sonar.

TRIM TABS

The Trim Tabs breaker controls the trim tab controls at each helm individually or at both helms. Trim tabs are used to improve the running angle of the yacht while underway. Refer to Section 6: *Trim Tabs* for more information on using the trim tabs.

WATER MONITOR

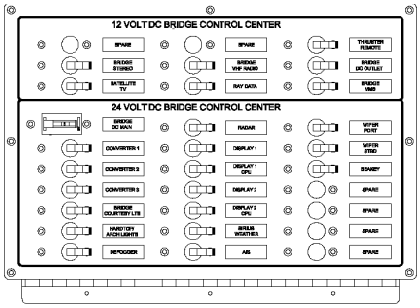
The Water Monitor breaker controls the fresh water monitoring system, including the water level display. The water level display is located on the STDB side of the pilothouse helm.

WASTE MONITOR

The Waste Monitor breaker controls the waste monitoring system for the heads, including the waste level display and DO NOT FLUSH panels. The waste level display is located on the STDB side of the pilothouse helm. The DO NOT FLUSH panels are located near each toilet.

WIPER: CENTER, STDB, AND PORT

The Center Wiper, STDB Wiper, and PORT Wiper breakers control the switches that operate the various windshield wipers.



DC Bridge Control Center

The Bridge Breaker Panel, located at the bridge helm, protects the circuitry of various optional bridge equipment. If a circuit breaker trips, identify and correct the cause of the problem, then press the breaker's reset button on this panel.

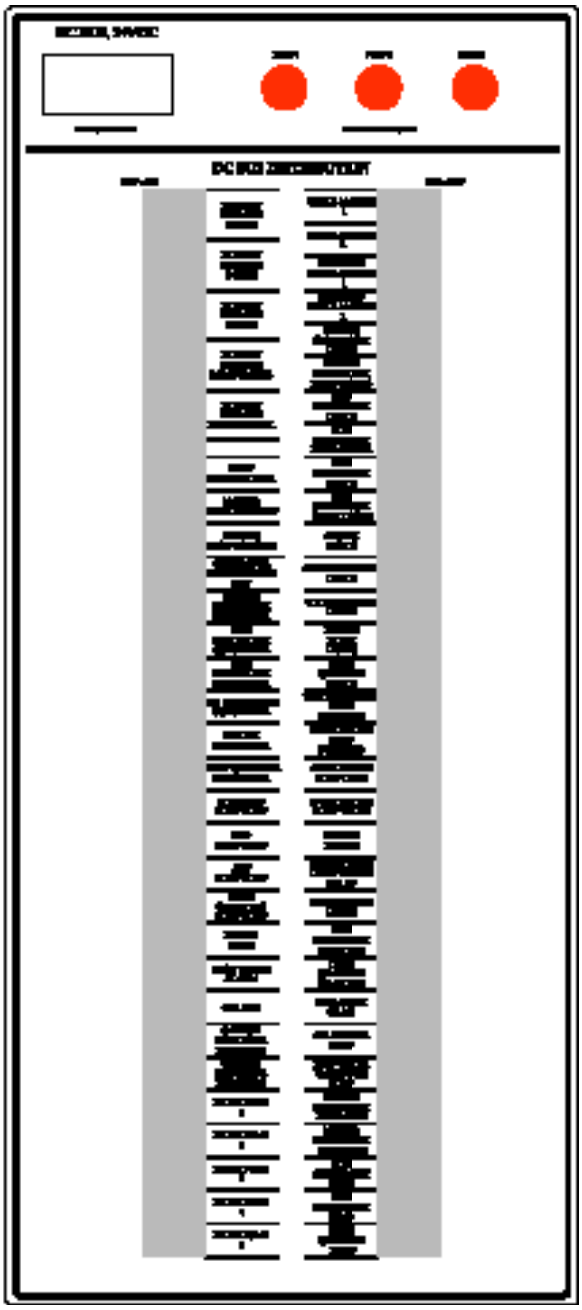
PROVIDING POWER TO THE DC BRIDGE CONTROL CENTER:

1. Provide power to the circuit breakers on the DC Bus Distribution Panel.
2. On that panel, switch the DC Main Breaker Salon Panel circuit breaker ON.
3. Locate the DC Distribution Panel, located in the Salon Aft STBD Cabinet:
    3a. Switch the Panel Main circuit breaker ON.
    3b. Switch the Converter 1 and 2 Bridge circuit breakers ON.

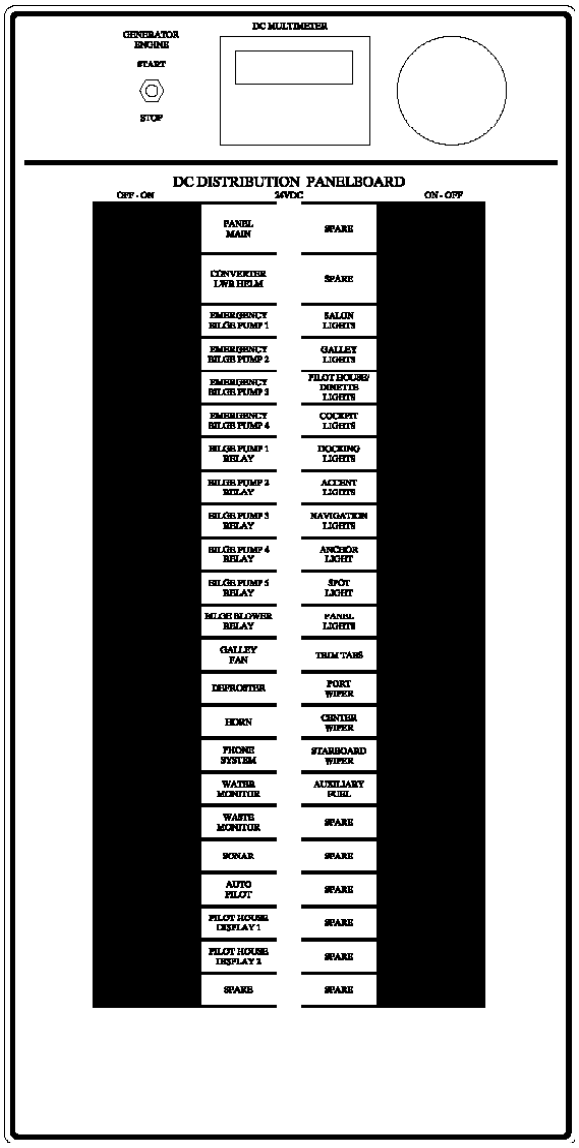
Refer to the OEM information for details on operating the equipment.

DC Panel Details

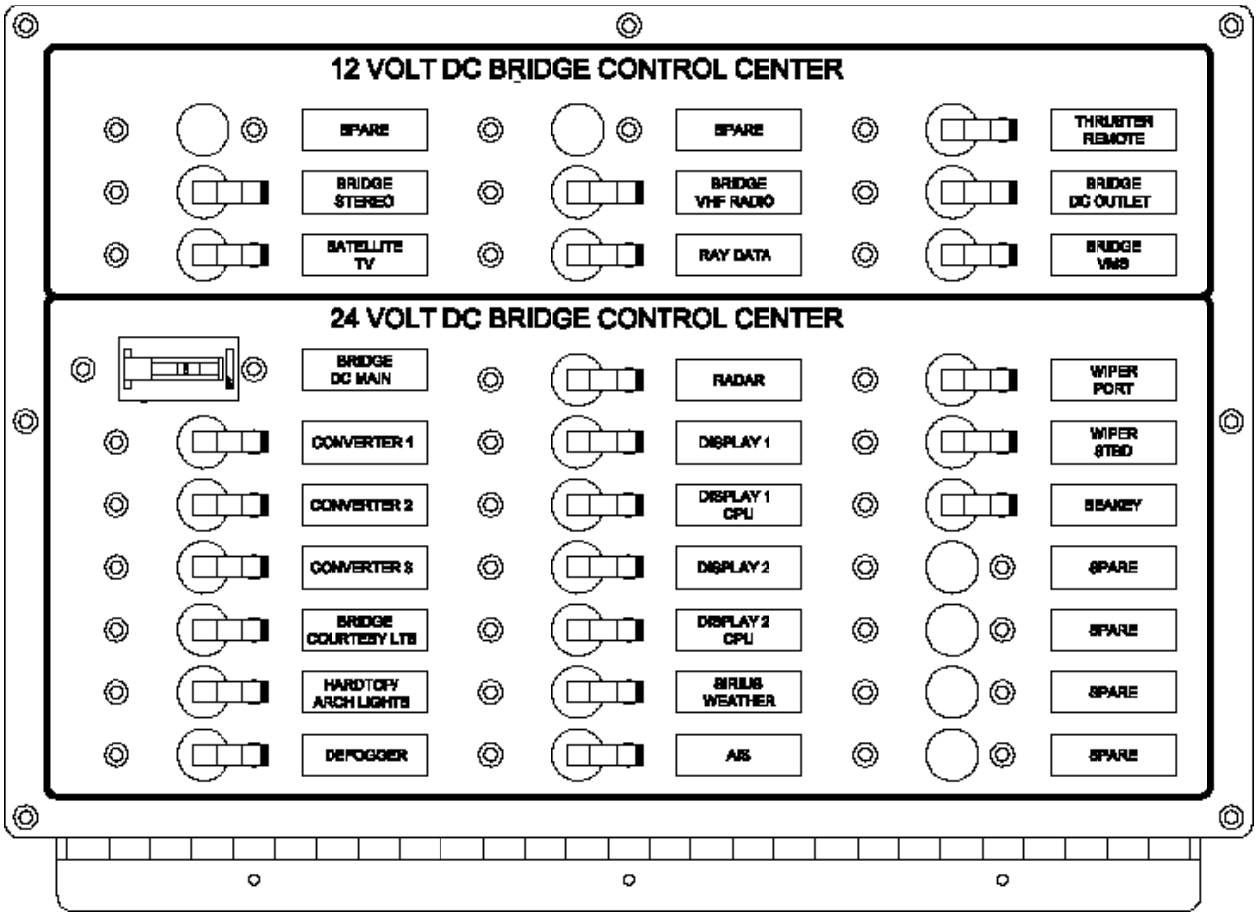
DC BUS DISTRIBUTION PANEL (ENGINE ROOM)



DC DISTRIBUTION PANEL (SALON AFT)



(See Next Page for DC Bridge Control Center)

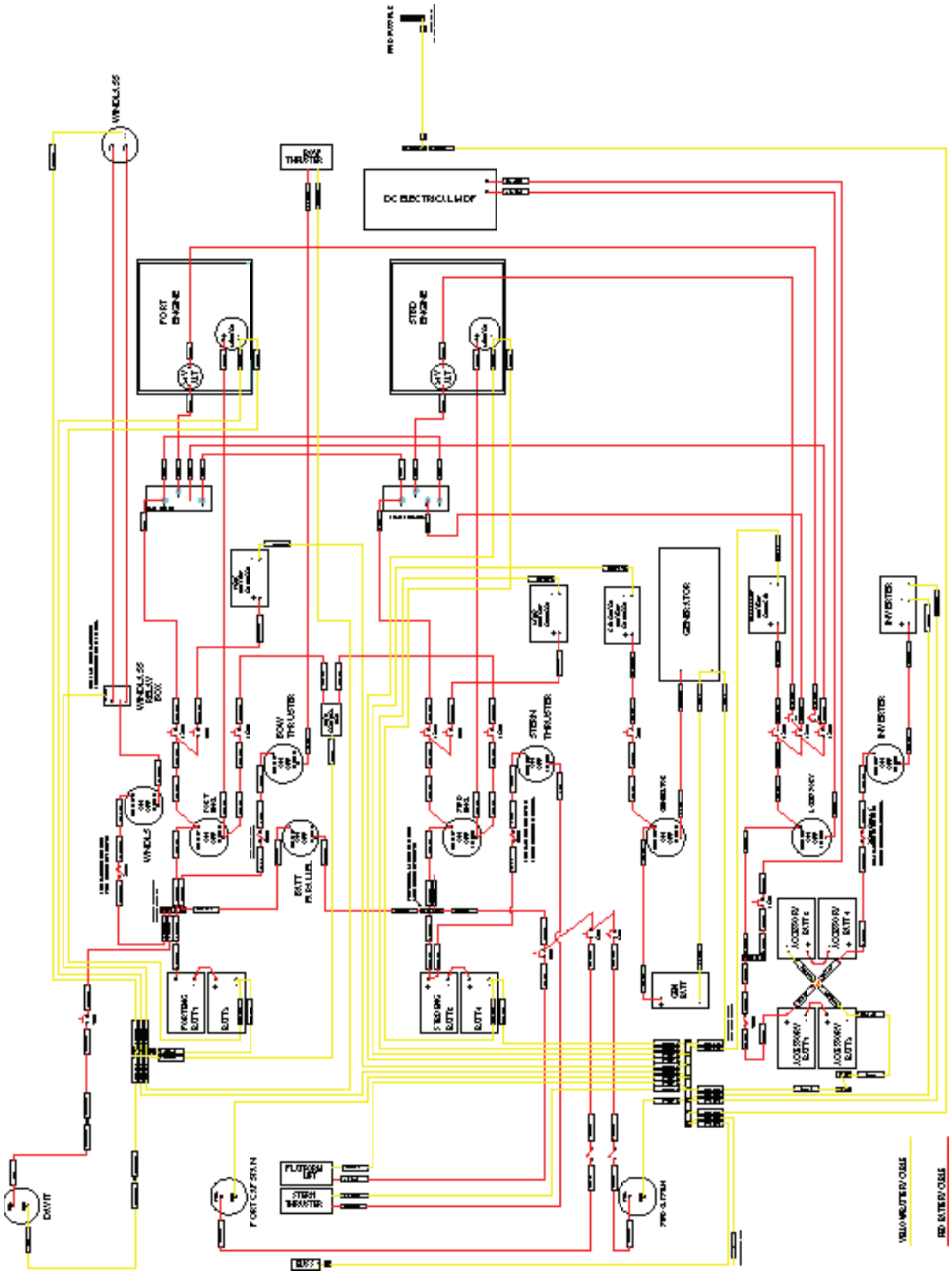


DC BRIDGE CONTROL CENTER

(See Next Page for DC Wiring Schematic)

DC ELECTRICAL SYSTEM: PROBLEM, CAUSE, AND SOLUTION

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
DC EQUIPMENT DOES NOT FUNCTION.	Battery master disconnect switch is in the OFF position.	Turn the switch to the ON position.
	Appropriate circuit breaker(s) on one or more DC breaker panels is not ON.	Switch the circuit breaker(s) ON.
	Battery is weak or dead.	Apply power to and activate the appropriate battery charger(s).
	A wire within the DC system is loose or disconnected.	Locate and repair the wire.
CABIN LIGHTS DO NOT COME ON OR ARE DIM.	The appropriate circuit breaker(s) on the DC Control Center is “OFF.”	Switch circuit breaker(s) “ON.”
	Battery is weak or dead.	Start the engines or activate the engine/ accessory battery charger.
	One or more light bulbs are burned out.	Replace light bulb(s).
BATTERY DOES NOT HOLD A CHARGE.	Battery failed.	Replace with a new battery.
ENGINE IS RUNNING AND VOLTMETER DOES NOT INDICATE ADEQUATE VOLTAGE.	Engine alternator belt is loose.	Refer to engine OEM information to tighten the belt.


WINDLASS
BOW THRUSTER
DC ELECTRICAL HUB
PORT ENGINE
STBD ENGINE
WINDLASS RELAY BOX
BOW THRUSTER
STERN THRUSTER
GENERATOR
INVERTER
INVERTER
DAVIT
PORT CAPSTAN
FLOTATION DEF
STERN THRUSTER
STBD CAPSTAN
YELLOW BATTERY CABLE
RED BATTERY CABLE

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AC Electrical System

An AC (alternating current) electrical system is installed onboard. The power for the system is supplied by either a shore power source or the onboard generator. The Shore Power Connection Procedure and the Onboard Generator Procedure are explained later in this section.

The AC Control Panel is divided into two sections; the voltage and Hz varies depending on which part of the county the yacht is being shipped to.

AC Power Sources

SHORE POWER

The stern shore power connectors are located on the transom. The optional forward shore power connectors are located on the foredeck in the forepeak locker.

The AC Main circuit breaker groups for the stern shore power connectors are located inside the lazarette storage/crew quarters, next to the transom entrance door. The AC Main circuit breaker groups for the optional forward shore power connectors are located in the same locker as the connectors.

NOTE: Remove all perishables from the refrigerator if the yacht is unoccupied for more than forty-eight hours. The shore power supply to the refrigerator may be interrupted and food may spoil.

CABLEMASTER: PORT AFT LOCATION

CABLE DEPLOYMENT SWITCHES

CABLEMASTER: BOW CENTRAL LOCATION

A TIP FROM MARQUIS!

STORING A BAG OF ICE CUBES IN YOUR REFRIGERATOR FREEZER SECTION WILL HELP MAINTAIN THE TEMPERATURE IF POWER IS DISCONNECTED. MELTED ICE INDICATES A LONG PERIOD POWER LOSS; ALL FOOD SHOULD BE CONSIDERED SPOILED.

CAUTION

DO NOT SUPPLY POWER TO THE WATER HEATER WHEN IT IS EMPTY. FIRE DAMAGE MAY RESULT IF THE HEATING ELEMENT IS DAMAGED.

DANGER

ELECTRICAL SHOCK RESULTING IN DEATH OR SERIOUS INJURY CAN INCUR BY USING A DAMAGED SHORE POWER CORD OR A CORD THAT IS NOT DESIGNED FOR THE INTENDED PURPOSE. THE SHORE POWER CORD MUST BE IN EXCELLENT CONDITION WITH NO CUTS, NICKS, OR ABRASIONS IN THE EXTERIOR PLASTIC COVER. THE CORD MUST BE SPECIFICALLY DESIGNED TO CONNECT THE YACHT TO A SHORE POWER SOURCE.

DANGER

DO NOT HANG THE END OF THE SHORE POWER CORD INTO THE WATER. NEARBY SWIMMERS OR PASSENGERS CAN BE KILLED OR SERIOUSLY INJURED FROM THE SURROUNDING ELECTRICAL FIELD.

DANGER

DEATH OR SERIOUS INJURY MAY INCUR BY INCORRECTLY SERVICING THE AC ELECTRICAL SYSTEM. ONLY TRAINED ELECTRICIANS SHOULD SERVICE THE YACHT'S AC ELECTRICAL SYSTEM.

BEFORE ATTEMPTING TO SERVICE THE AC ELECTRICAL SYSTEM, ALWAYS:

- **DISCONNECT THE YACHT FROM THE SHORE POWER SOURCE**
- **SHUT OFF THE GENERATOR**
- **DISABLE THE INVERTER**

SHORE POWER CONNECTION

SHORE POWER CONNECTION PROCESS:

STEP 1: Switch OFF the Water Heater circuit breaker, located on the AC BUS 1 Distribution Panel, in the Engine Room Aft. **DO NOT** switch the breaker ON again until the fresh water system has been filled, pressurized, and primed.

STEP 2: Switch OFF both SHORE and GENERATOR circuit breaker groups, located on the AC BUS 1 Distribution Panel, in the Engine Room Aft.

STEP 3: Switch OFF the AC MAIN circuit breaker group(s), located on the AC BUS 1 Distribution Panel and AC BUS 2 Distribution Panel, in the Engine Room Aft.

NOTE: Switch off the AC MAIN circuit breakers before connecting to the shore power to prevent arch ing and burning of the shore power cord receptacles. Disconnecting will protect the electrical equipment on board from rapid ON/OFF current connections, which may occur during the con nection process.

STEP 4: Locate the 50' shore power cord. Connect the female end of the cord to the yacht's shore power receptacle, located at the PORT Aft Stairway.

STEP 5: Connect the female end of the cord(s) to the yacht's shore power receptacles(s). The receptacles(s) are located on the PORT transom. If the optional forward shore power receptacle(s) are equipped, they are located on the STDB forward side deck.

STEP 6: Secure the nonmetallic threaded locking ring to the yacht's shore power receptacle. Securing, prevents the cord from being accidentally disconnected, and prevents arcing due to a gap between the cord plug and the receptacle.

STEP 7: Unthread the access cap and lift cap up. Pay out cord as needed using the Cable Master Switch.

STEP 8: Switch the External Cord and Cablemaster circuit breaker OFF, installed in the source box at the shore power station, located in the Engine Room Aft STBD.

STEP 9: Plug the male end of the shore power cord into the shore power source outlet.

STEP 10: Secure the nonmetallic threaded locking ring to the shore power source outlet. Securing the locking ring prevents the cord from being accidentally disconnected and from arcing due to a gap between the cord plug and the outlet.

STEP 11: Press the Red SHORE 1 button to turn ON, located on the AC BUS 1 Distribution Panel. Press the Red SHORE 2 button to turn ON, located on the AC BUS 2 Distribution Panel.

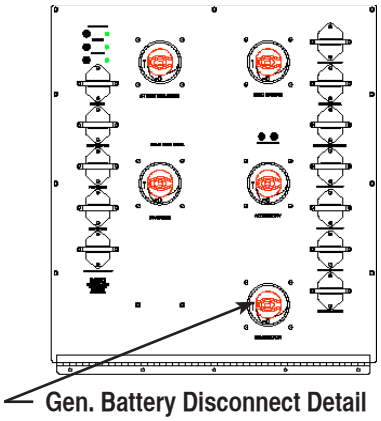
STEP 12: Switch the AC MAIN circuit breaker group ON, located on the AC BUS 1Distribution Panel and AC BUS 2 Distribution Panel, in the Engine Room Aft. The Green indicator light should be ON. If the green indicator light is NOT ON:

- Recheck all connections and check circuit breakers on STDB side aft bulkhead near Cablemaster.
- Monitor voltmeter and ammeter while connected to shore power.

STEP 13: Turn the shore power receptacle selector switch (if equipped), to select the forward or aft shore power receptacle(s), selection depends on which item the shore power cord is connected to. The shore power cord receptacle is located on the upper left corner of the AC Control Center.

STEP 14: Switch ON the Shore Circuit Breaker group(s) on the AC BUS 1 Distribution Panel and AC BUS 2 Distribution Panel . **If the POWER AVAILABLE indicator illuminates, power is available to the other circuit breakers on the AC Control Center**

STEP 15: Monitor the voltmeter and ammeter while the yacht is connected to the shore power source. The operation of the voltmeter is described later in this section.



Gen. Battery Disconnect Detail (Engine Rm).

GENERATOR POWER

The onboard generator can be used to power the AC electrical system when a shore power source is not available. The generator is installed forward of the main engines and draws fuel from the center tank.

The generator starter is powered by a designated 12-volt battery. The generator battery is located with the engine batteries in the engine room. Power to the generator from the battery is controlled by a master disconnect switch located on the engine room bulkhead.

CAUTION

NEVER TURN OFF THE GENERATOR MASTER DISCONNECT SWITCH WHILE THE GENERATOR IS OPERATING. THE GENERATOR AND/OR ALTERNATOR WIRING CAN BE DAMAGED.

NOTE: The generator battery charger recharges the battery necessary. The Battery Charger circuit breaker on the AC Control Center must be ON for the charger to operate.

STARTING THE GENERATOR:

READ, UNDERSTAND, AND FOLLOW THE OEM (ORIGINAL EQUIPMENT MANUFACTURER) INFORMATION THAT DESCRIBES THE GENERATOR.

STEP 1: Turn the Generator START switch to the ON position. The START switch is located on the upper left corner of the DC Distribution Panel.

STEP 2: Close the seacocks; remove and clean the strainer. The strainer is located in the Engine Room, near the Forward Outboard Corner of the STBD Engine.

The generator engine uses a seawater cooling system. The cooling system includes a strainer that prevents debris in the seawater from entering the cooling system's water pump. Refer to Section 9: *Engine Room* for the exact location of the strainer.

STEP 3: Open the cooling system's intake and outlet seacock. The seacock is located near the FWD outboard corner of

the Engine Rm. Center. Refer to Section 9: *Engine Room* for the exact location of the seacock.

A Tip From Marquis!

Dedicating a 12-volt battery to the generator provides an important safety feature. A dedicated battery enables you to start the generator regardless of the condition of the propulsion engine batteries. If the batteries become discharged to the point where they are unable to start an engine: start the generator, then turn on the engine battery chargers. When the engine batteries are recharged to an adequate level, you can start the propulsion engines.

CAUTION

DO NOT OPERATE THE GENERATOR WHILE THE GENERATOR'S COOLING SYSTEM SEACOCK IS CLOSED. OPERATING THE GENERATOR WITH THE SEACOCKS CLOSED CAN DAMAGE THE SYSTEM.

STEP 4: Reinstall the strainer. If the strainer leaks when the seacock is opened; close the seacock, then check the strainer for correct installation.

STEP 5: Switch ALL Bilge Blower circuit breakers ON, located on the DC Distribution Panel (Salon).

STEP 6: Switch ON the Generator Compartment Fan circuit breaker, located on the DC Distribution Panel (Salon).

The generator compartment fan turns ON when the generator has been started, and continues operating as long as the generator is running. The fan removes excess heat from the STBD bilge compartment. Check that the generator compartment fan is operating properly by feeling for blowing air from the vent. The vent is located on the STBD transom above the boarding platform.

CAUTION

THE STARTER CAN BE DAMAGED BY HOLDING DOWN THE GENERATOR SWITCH IN THE START POSITION AFTER THE GENERATOR IS STARTED. THE GENERATOR START/STOP SWITCH IS SPRING ACTIVATED. RELEASE THE SWITCH FROM THE START POSITION ONCE THE GENERATOR STARTS.

NEVER HOLD THE STOP/START SWITCH IN THE START POSITION FOR MORE THAN 10 SECONDS.

STEP 7: Press and hold the spring loaded generator START/STOP switch until the generator starts. The switch is located at the top of the DC Distribution Panel. Release the switch once the generator starts.

STEP 8: Press and hold the round RED button labeled GENERATOR at the top right corner of the AC BUS 1. The button connects the AC electrical system to the generator output. Once the generator is running and the indicator light illuminates, power is available to the other circuit breakers on the AC Control Center.

STEP 9: Turn the generator OFF.

9a. Push the START/STOP switch to the STOP position, located on the top of the DC Distribution Panel.

9b. Turn the generator battery master disconnect switch to the **OFF** position if the generator is not going to be used for a few days.

STEP 10: Switch the Red, GENERATOR button **OFF,** located on the AC Bus 1 Distribution Panel, to change the AC power source from the generator to shore power**.** Then connect to a shore power source as described earlier in this section.

DANGER

DO NOT INHALE GENERATOR EXHAUST. GENERATOR EXHAUST CONTAINS CARBON MONOXIDE, A POISONOUS GAS. REFER TO SECTION 1: *CARBON MONOXIDE WARNINGS* FOR MORE INFORMATION ON ENGINE EXHAUST AND CARBON MONOXIDE.

Operating the AC Equipment

Power to the AC components is controlled by circuit breakers, and individual controls for each component.

Three AC Circuit Panels are available onboard:

- AC Bus 1 Distribution Panel (Engine Room)
- AC Bus 2 Distribution Panel (Engine Room)
- AC Distribution Panel (Salon Aft)

Additionally, AC Main circuit breaker groups are located near the shore power connectors.

The electricity to the AC components and component controls can be controlled by switching the breakers from the above panels ON or OFF. The breakers also protect the electrical system by automatically disconnecting the circuit from the power source in the event of a short or overload.

NEVER

NEVER RESET A BREAKER THAT HAS AUTOMATICALLY TRIPPED WITHOUT FIRST CORRECTING THE PROBLEM. FAILURE TO CORRECT THE PROBLEM MAY CREATE A DANGEROUS SITUATION.

NOTE: A circuit breaker location may be labeled, but no circuit breaker is present. In this situation, the component named on the label is an option that is not installed on the purchased model.

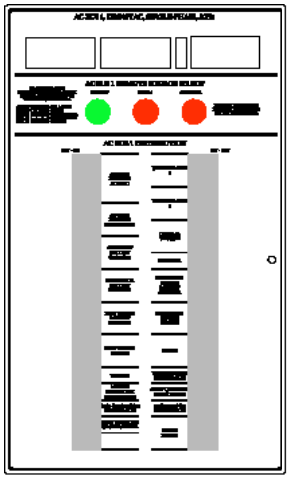
AC MAIN CIRCUIT BREAKER GROUP(S)

When using a shore power source to supply AC power to the yacht, the power is routed through the AC Main circuit breaker group before the power supplied onboard. Each cablemaster or shore power cord has a dedicated AC Main circuit breaker group. Power flows to the AC Bus 1 or 2 Distribution Panel when the AC Main circuit breaker group is ON.

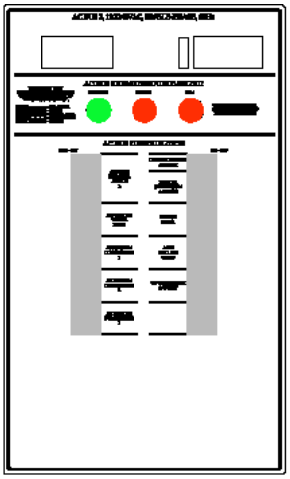
The circuit breaker groups for the shore power connectors are located inside the lazarette storage/crew quarters PORT access hatch and generator access area.

WARNING

DO NOT OVERLOAD THE ELECTRICAL CIRCUITS. TURN OFF ALL DEVICES CONNECTED TO THE CIRCUIT, THEN SWITCH THE BREAKER ON AGAIN IF AN EXCESSIVE LOAD TRIPS A CIRCUIT BREAKER.



AC BUS 1 DISTRIBUTION PANEL



AC BUS 2 DISTRIBUTION PANEL

AC BUS 1 and AC BUS 2 DISTRIBUTION PANELS

The AC Bus 1 and AC Bus 2 Distribution Panels are located in Engine Room on the forward bulkhead. Both panels manage a majority of the yacht's AC power system, and control the flow of electricity to the salon AC Distribution Panel.

The AC Bus 1 and AC Bus 2 Distribution Panels contain the circuit breakers described in this section. The panels also contain additional controls and meters described in the vendor literature entitled *Marine Switch gear Systems Installation and Operating Manual*.

AC BUS 1 and AC BUS 2 DISTRIBUTION PANEL BREAKERS

AC MAIN BREAKER AC BUS 1 and AC MAIN BREAKER AC BUS 2

Switch the AC Main Breaker AC Bus 1 and AC Main Breaker AC Bus 2 breakers ON to supply power to the other circuit breakers on the AC Bus 1 and AC Bus 2 Distribution Panels.

AC MAIN BREAKER SALON PANEL

Switch ON the AC Main Breaker Salon Panel breaker to supply power to the Salon AC Distribution Panel.

ACCESSORY BATTERY CHARGER

The Accessory Battery Charger breaker controls the battery charger that maintains the voltage levels in the accessory batteries. Refer to the OEM information for details on operating the battery charger.

AIR CONDITIONER SYSTEM COMPRESSOR 1

The Air Conditioner System Compressor 1 breaker controls the compressor and evaporator/blower components of the Salon and Helm portion of the air conditioning system.

CAUTION

DO NOT SWITCH THE A/C SYSTEM COMPRESSOR BREAKERS ON UNTIL AFTER THE SEACOCK SUPPLYING THE AIR CONDITIONING SYSTEM WITH SEAWATER HAS BEEN OPENED. REFER TO SECTION 4: *AIR CONDITIONING SYSTEM* FOR MORE INFORMATION.

AIR CONDITIONER SYSTEM COMPRESSOR 2

The Air Conditioner System Compressor 2 breaker controls the compressor and evaporator/blower components of the master state-room and VIP stateroom portion of the air conditioning system.

CAUTION

DO NOT SWITCH THE A/C SYSTEM COMPRESSOR BREAKERS ON UNTIL AFTER THE SEACOCK SUPPLYING THE AIR CONDITIONING SYSTEM WITH SEAWATER HAS BEEN OPENED. REFER TO SECTION 4: *AIR CONDITIONING SYSTEM* FOR MORE INFORMATION.

AIR CONDITIONER SYSTEM COMPRESSOR 3

The Air Conditioner System Compressor 3 breaker controls the compressor and evaporator/blower components of the master state-room and VIP stateroom portion of the air conditioning system.

CAUTION

DO NOT SWITCH THE A/C SYSTEM COMPRESSOR BREAKERS ON UNTIL AFTER THE SEACOCK SUPPLYING THE AIR CONDITIONING SYSTEM WITH SEAWATER HAS BEEN OPENED. REFER TO SECTION 4: *AIR CONDITIONING SYSTEM* FOR MORE INFORMATION.

AIR CONDITIONER SYSTEM WATER PUMP

The Air Conditioner System Water Pump breaker controls the water pump supplying the air conditioning system with seawater.

AIR CONDITIONING UNIT: CREW QUARTERS

The Air Conditioning Unit: Crew Quarters breaker controls the air conditioning unit in the optional crew quarters. To supply power to the unit, switch the A/C System Water Pump circuit breaker ON before switching Air Conditioning Unit: Crew Quarters breaker ON.

AIR CONDITIONING UNIT: MASTER STATEROOM

The Air Conditioning Unit: Master Stateroom breaker controls the heater strip in the master stateroom's evaporator/blower.

SUPPLYING POWER TO THE HEATER STRIP:

1. Switch ON the A/C System Water Pump circuit breaker
2. Switch ON the A/C System Compressor 2 circuit breaker
3. Switch this circuit breaker ON, the Air Conditioning Unit: Master Stateroom breaker

AIR CONDITIONING UNIT: VIP STATEROOM

The Air Conditioning Unit: VIP Stateroom breaker controls the heater strip in the VIP stateroom's evaporator/blower.

SUPPLYING POWER TO THE HEATER STRIP:

1. Switch ON the A/C System Water Pump circuit breaker
2. Switch ON the A/C System Compressor 2 circuit breaker
3. Switch this circuit breaker ON, the Air Conditioning Unit: Master Stateroom breaker

ANTI-ROLLING GYRO

The Anti-rolling Gyro breaker controls the Anti-rolling gyro installed to stabilize the yacht. Refer to the OEM information for details on operating the mechanism.

BATTERY CHARGERS: GENERATOR, STDB ENGINES, PORT ENGINES, AND ACCESSORY

The Battery Chargers breakers control the battery chargers that maintain the generator voltage level, STBD and PORT engine batteries. Refer to the OEM information for details on operating the battery chargers.

BRIDGE GRILL

The Bridge Grill breaker group controls the optional cooking grill on the bridge. Refer to the OEM information for details on operating the grill.

CENTRAL VACUUM

The Central Vacuum breaker controls the optional central vacuum system. Refer to the OEM information for details on operating the central vacuum system.

CREW QUARTERS WASHER AND DRYER

The Crew Quarters Washer and Dryer breakers control the clothes washer and dryer in the Crew Quarters. Refer to the OEM information for details on operating these items.

ENGINE HEATERS: STDB AND PORT

The Engine Heaters: STDB and PORT breakers control the engine's heaters. Switch both breakers ON to supply power to the engine heaters. Refer to the OEM information for details on operating the engine heater.

EXTERIOR LIGHTS

The Exterior Lights breaker controls the AC-powered exterior lights. The AC-powered exterior lights illuminate the side decks.

INVERTER

The Inverter breaker controls the inverter in the generator access area. Refer to Section 2: *Inverter* and the OEM information for details on operating the inverter.

MASTER STATEROOM RECEPTACLES

This Master Stateroom Receptacles breaker controls the receptacles in the Master Stateroom and the Master Stateroom's head. Use the receptacles as outlets are used in home.

NOTE: If the circuit breaker is ON, but power is not available at any of the receptacles in this circuit, the circuit's GFCI may have tripped. Refer to Section 3: *Ground Fault Circuit Interrupters* for more information.

RECEPTACLES: CREW QUARTERS, SIDE STATEROOM, VIP STATEROOM AND ENGINE ROOM

The Receptacles breakers control the receptacles in the areas listed. Use the receptacles the same the outlets in your home.

NOTE: The circuit's GFCI may have tripped if any of the receptacles circuit breakers are ON, but power is not available at the receptacles in this group. Refer to Section 3: *Ground Fault Circuit Interrupters* for more information.

WASHER AND DRYER

The Washer breaker and the Dryer breaker control the optional clothes washer and dryer. Refer to the OEM information for details on operating washer and dryer.

WATER HEATER 1 and WATER HEATER 2

These Water Heater 1 and Water Heater 2 breakers control the water heaters. The water heaters supply hot water to the fresh water system. Refer to the OEM information for details on operating the water heaters.

CAUTION

DO NOT SUPPLY POWER TO THE WATER HEATERS WHILE EMPTY. SUPPLYING POWER MAY DAMAGE THE UNITS' HEATING ELEMENTS. REFER TO SECTION 4 - FRESH WATER SYSTEM TO FILL, PRESSURIZE, AND PRIME THE FRESH WATER SYSTEM BEFORE TURNING ON THE WATER HEATERS.

WATER MAKER

The Water Maker breaker controls the flow of electricity to the optional water maker. Switch the breaker ON to supply power to the water maker. The water maker is located in the PORT aft bilge area. Refer to Section 9: *Engine Room* for the exact location of the water maker. Refer to Section 4: *Water Maker* and the OEM information for details on operating the water maker.

SALON AC DISTRIBUTION PANEL

The Salon AC Distribution Panel manages the power supply to the AC components listed on the panel. The AC panel is located in a cabinet in the aft PORT corner of the salon. The AC Distribution Panel contains the circuit breakers described below. The AC panel also contains additional controls and meters described in the vendor literature entitled, *Marine Switch gear Systems Installation and Operating Manual*.

AC MAIN BREAKER

The AC MAIN breaker group controls the other circuit breakers on the salon AC Distribution Panel. Switch the AC MAIN breaker group ON to supply power to the other circuit breakers.

NOTE: If this circuit breaker is ON but power is not available at any of the receptacles in this group, the circuit's GFCI may have tripped. Refer to Section 3: *Ground Fault Circuit Interrupters* for more information.

BRIDGE COOLING

The Bridge Cooling breaker group controls the air conditioning unit in the bridge helm. Switch ON the A/C System Water Pump circuit breaker before switching the Bridge Cooling breaker group ON to supply power to the unit.

COFFEE MAKER

The Coffee maker breaker controls the coffee maker in the galley. Refer to the OEM information for details on operating the coffee maker.

DISHWASHER

The Dishwasher breaker controls the optional dishwasher in the galley. Refer to the OEM information for details on operating the dishwasher.

DAVIT

The Davit breaker controls the optional davit installed to hoist the dingy. Refer to the OEM information for details on operating the Davit.

ENTERTAINMENT CENTER MASTER STATEROOM

The Entertainment Center Master Stateroom breaker controls the TV in the master stateroom. Refer to the OEM information for details on operating the TV.

NOTE: The master stateroom and salon entertainment center can be operated from the DC electrical system when an AC power source is not available. Refer to Section 2: *Inverter* for more information.

ENTERTAINMENT CENTER SALON

The Entertainment Center Salon breaker controls the entertainment center (TV, DVD, and Stereo) in the salon. Refer to the OEM information for details on operating the TV, DVD, and stereo.

EXTERIOR ICEMAKER

The Icemaker - Exterior breaker controls the optional ice maker located beneath the bridge wet bar. Refer to the OEM information for details on operating the ice maker.

NOTE: The ice maker can be operated from the DC electrical system when an AC power source is not available. Refer to Section 2: *Inverter* for more information.

GRILL

The Grill breaker group controls the optional cooking grill on the bridge. Refer to the OEM information for details on operating the grill.

MICROWAVE

The Microwave breaker group controls the flow of electricity to the convection microwave located in the galley. Switch the breaker group ON to supply power to the microwave. Refer to the OEM information for details on operating the microwave.

WARNING

LIMIT THE AMOUNT OF MICROWAVE ENERGY EXPOSURE. FOLLOW THE SAFETY INSTRUCTIONS BELOW:

- **DO NOT ATTEMPT TO OPERATE THE MICROWAVE OVEN WITH THE DOOR OPEN.**
- **DO NOT TAMPER WITH OR DEFAULT THE SAFETY INTERLOCKS.**
- **DO NOT PLACE OBJECTS BETWEEN THE MICROWAVE OVEN FRONT FACE AND DOOR.**
- **DO NOT ALLOW SOIL OR CLEANER RESIDUE TO ACCUMULATE ON THE SEALING SURFACE OF THE MICROWAVE OVEN DOOR.**
- **DO NOT OPERATE THE MICROWAVE OVEN IF DAMAGED. DO NOT OPERATE IF THE DOOR IS BENT, HINGES AND LATCHES ARE BROKEN/LOOSE, DOOR SEALS ARE BROKEN, SEALING SURFACES OR GLASS IS BROKEN.**
- **THE MICROWAVE OVEN DOOR MUST CLOSE PROPERLY TO PROVIDE SAFE OPERATION.**
- **HAVE A QUALIFIED REPAIR PERSON ADJUST, REPAIR, AND CHECK THE MICROWAVE OVEN FOR LEAKAGE AFTER A REPAIR IS MADE.**

PRESSURE WATER PUMP

The Pressure Water Pump breaker controls the fresh water system's pressure water pump. After the fresh water tank is filled, switch the Pressure Water Pump breaker ON to activate the pressure water pump. Refer to Section 4: *Pressurizing and Priming the Water*

System for information on using the pressure water pump to fill and prime the water system.

NOTE: The pressure water pump can be operated from the DC electrical system when an AC power source is not available. Refer to Section 2: *Inverter* for more information.

RANGE

The Range breaker group controls the stove top in the galley. Refer to the OEM information for details on operating the range.

RECEPTACLES: GALLEY, PILOTHOUSE, AND EXTERIOR

The Receptacles: Galley, Pilothouse, and Exterior breakers control the receptacles in various areas of the yacht as noted on the panel. Use the receptacles as outlets are used in home.

NOTE: The circuit's GFCI may have tripped if the circuit breaker is ON, but power is not available at the receptacles in this circuit. Refer to Section 3: *Ground Fault Circuit Interrupters* for more information.

REFRIGERATOR: SUB-ZERO REFRIGERATOR AND EXTERIOR REFRIGERATOR

The Refrigerator: Sub-Zero Refrigerator and Exterior Refrigerator breakers control the flow of electricity to the refrigerator in the galley and optional exterior refrigerator. Refer to the OEM information for details on operating the refrigerators.

NOTE: The refrigerator can be operated from the DC electrical system when an AC power source is not available. Refer to Section 2: *Inverter* for more information.

SALON LIGHTS AND RECEPTACLES

The Salon Lights and Receptacles breaker controls the lights and receptacles in the salon. The receptacles are used the same as in-home outlets.

TRASH COMPACTOR

The Trash Compactor breaker controls the optional trash compactor in the galley. Refer to the OEM information for details on operating the trash compactor.

WINE COOLER

The Wine Cooler breaker controls the optional wine cooler installed in the bridge.

CAUTION

DO NOT USE THE AC SYSTEM IF THE VOLTMETER READS 205 VOLTS OR LESS. USING THE EQUIPMENT ASSOCIATED WITH THE DC PANEL AT BELOW LEVEL READINGS WILL RESULT IN EQUIPMENT FAILURE OR MAIN BREAKER TO TRIP.

If the voltmeter reads 205 volts or less, perform one or both of the following:

- Contact the marina's management to identify and correct the shore power problem. (Or)
- Have a qualified technician service the generator.

NOTE: Yachts operating on 210 volts: limits are set at 210-240 volts AC; no less than 200 volts.

If no electricity is reaching the AC Control Center, the voltmeter reads zero voltage, and indicator lights are not illuminated. Check the following options:

If the GENERATOR is being used, make sure:

- The generator is operating properly
- The safety circuit breaker is ON, located on the generator control panel

If the SHORE POWER is being used, make sure:

- The shore power cord is properly attached to both: the yacht and the shore power source
- The circuit breaker at the shore power source box is ON
- The AC Main circuit breaker group is ON

If the above options do not work and the voltmeter continues to read zero voltage:

- Contact the marina's management to identify and correct the shore power problem. (Or)
- Have a qualified technician service the generator.
- Have the system inspected by a qualified electrician if the problem appears to be in the AC electrical system.

Ground Fault Circuit Interrupters

Each AC receptacle contains a Ground Fault Circuit Interrupter (GFCI). The GFCI measures both: the amount of current flowing to the circuit's receptacles, and the amount of current returning from the receptacles. The GFCI compares the two values once measured. If the values are not the same: the GFCI instantly trips, and power is shut-off to the receptacles.

An electrical shock received through a standard receptacle will continue through a person's body and flow into any grounded object that the person is touching or standing on. The GFCI, however, will immediately shut off power to the receptacle. Shutting off the power, limits the time the person being shocked, to a brief moment; significantly reducing injury to the person.

Ground Fault Circuit Interrupter (GFCI)

GFCI RECEPTACLE LOCATIONS

Five GFCI receptacles are installed onboard. Each receptacle protects a group of receptacles that can include both open outlets and outlets already in use for built-in equipment.

RESETTING AND TESTING GFCI'S

A Test Button and ON/OFF switch is mounted on each GFCI. Switch the ON/OFF switch to ON, to reset a GFCI that has tripped.

GFCI's have Test and Reset buttons located on the receptacles. Press the Reset button to reset the GFCI after it has tripped. Resetting a GFCI allows electricity to flow again to the receptacle.

Test each GFCI circuit once per week.

TESTING THE UNIT:

1. Press the Test button. If operating normally, it cuts the electricity to the receptacle on the GFCI.
2. Plug a lamp or other AC powered device into the receptacle, and turn ON the device. The device should NOT operate.
3. Press the Test button. **DO NOT** use the receptacle if the receptacle still has power. Contact a qualified electrician to make the appropriate repairs
4. Reset the GFCI to restore power to the receptacle.

DANGER

DEATH OR SERIOUS INJURY CAN OCCUR BY RECEIVING AN ELECTRICAL SHOCK FROM THE AC ELECTRICAL SYSTEM. SYSTEM INCLUDING THE GFCI RECEPTACLE. SEEK IMMEDIATE MEDICAL ATTENTION AFTER RECEIVING AN ELECTRICAL SHOCK.

DANGER

DO NOT USE A GFCI OR ANY RECEPTACLE ON A GFCI CIRCUIT IF POWER IS STILL AVAILABLE ON THAT CIRCUIT AFTER

THE TEST BUTTON HAS BEEN PRESSED. CONTACT A QUALIFIED ELECTRICIAN TO MAKE APPROPRIATE REPAIRS.

ELECTRICAL LOADS

Be aware that each device exerts a "load" on the system when operating AC powered devices through the AC electrical system. The electrical load is equal to the amount of current (amps) that the device draws from the AC electrical system. The AC electrical system is designed with a maximum total load that the device can handle. Each LINE circuit has an electrical load capacity of 50 amps.

The breaker for the LINE circuit will trip if the total load on the circuit exceeds the circuit's capacity. Meaning that the devices operating from the circuit are drawing too much current.

WARNING

DO NOT OVERLOAD THE ELECTRICAL CIRCUITS. TURN OFF ALL DEVICES CONNECTED TO THE CIRCUIT, THEN SWITCH THE BREAKER BACK ON IF AN EXCESSIVE LOAD TRIPS A CIRCUIT BREAKER.

A list of common AC powered devices and the approximate maximum current that the devices draw while operating is shown in the chart below. If an AC-powered device is used that has an electric motor, such as a vacuum cleaner or electric drill, the device should have a "motor load plate" mounted on it. The motor load plate lists the current that the device draws while operating.

ELECTRICAL LOAD PER DEVICE

AC DEVICE	APPROXIMATE MAXIMUM CURRENT USED (AMPS)
Fan	0.7
Electric blanket	2.0
Television	2.7
Coffee maker	6.3
Battery charger	7.3
Toaster	10.5
Frying pan	12.3
Space heater	13.7
Refrigerator	1.5

As detailed above, appliances using a motor or a heating element draw relatively large amounts of current. Exercise caution when using appliances such as: curling irons, toasters, coffee makers, hair dryers, food mixers or similar types of AC powered devices.

DO NOT use too many motor operated appliances at the same time.

Bonding System

A comprehensive metallic bonding system that interconnects all underwater equipment and thru-hull fittings is equipped on each model. The bonding system ensures that all metallic equipment onboard, including the fittings, have at the same electrical potential. The bonding system minimizes corrosion of the underwater fittings caused by stray electrical currents.

Sacrificial zinc anodes is a component added in the bonding system in the drive units and the underwater portion of the yacht's transom. The anodes corrode and deteriorate before the yacht's underwater fittings. The anodes also provide a visual reference to the level of stray current that the yacht is exposed to.

The yacht's 12 Volt DC electrical system, AC electrical system, and the batteries' negative leads are all connected to the bonding system through bus bars. The bus bars are located in the engine room and aft bilge area, and are connected to the transom-mounted zinc plate.

WARNING

DO NOT MODIFY THE YACHT'S BONDING SYSTEM. THE SYSTEM'S INTEGRITY IS WEAKENED BY MAKING MODIFICATIONS.

MONITOR THE CONDITION OF THE YACHT'S ZINC ANODES. REPLACE THE ZINC ANODES WHEN THEY HAVE DETERIORATED TO 50% OF THE ORIGINAL SIZE. DO NOT ALLOW THE ZINC ANODES TO COMPLETELY DETERIORATE. REFER TO SECTION 7: *MAINTENANCE SCHEDULE* FOR RECOMMENDED INSPECTION INTERVALS.

NOTE: Damage resulting from stray current or galvanic corrosion is NOT covered under the Marquis limited warranty

AC POWER ISSUES

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
VOLTMETER ON AC CONTROL PANEL READS ZERO	Shore power cored is not connected	Connect the shore power cord
	There is no power at the shore power source box	Contact marina management
	The breaker installed in the shore power source box is OFF	Switch ON the circuit breaker
	The AC MAIN circuit breaker group is OFF	Switch ON the circuit breaker group
	The appropriate Shore or Generator circuit breaker group on AC Control Panel is OFF	Switch ON the circuit breaker group
	The shore power cord failed	Replace the cord
	The generator ran out of fuel	Check the fuel level in the port fuel tank; refuel if necessary
	The safety circuit braker on the generator control panel is OFF	Switch ON the circuit breaker
	The generator failed	Contact a qualified electrician to make the appropriate repairs
	The voltmeter failed	Contact a qualified electrician to make the appropriate repairs
	The wire within the AC electrical system is loose or disconnected	Contact a qualified electrician to make the appropriate repairs
NO POWER AT THE RECEPTACLES, BUT THE VOLTMETER ON THE AC CONTROL PANEL INDICATES AN ADEQUATE VOLTAGE LEVEL	The receptacles breakers on the AC Control Panel are OFF	Switch ON the circuit breaker
	A GFCI has tripped	Locate the tripped GFCI and press the RESET button
THE SHORE #1 OR SHORE #2 MAIN CIRCUIT BREAKER ON THE AC CONTROL PANEL TRIPS IMMEDIATELEY AFTER BEING RESET	The circuit breaker has failed	Contact your Carver Dealer to have the circuit breaker replaced

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AIR CONDITIONING SYSTEM

Section 4 applies ONLY, to the Interior Air Conditioning System installed at the Marquis Assembly Plant.

NOTE: An aftermarket air conditioning system may not operate the same as the system explained in this section.

The air conditioning system needs an AC power source to operate, supplied either by:

- Shore power or the generator
- Supply of water (either salt or fresh)

The factory-installed air conditioning system consists of four air conditioning units arranged in a split configuration. Two condenser/compressors are installed, each located in the engine room at base of the forward bulkhead. There are four additional evaporator/condensers located throughout the yacht. The locations are as follows:

BRIDGE LOUNGE

Unit is located behind the bridge lounge to cool the salon.

PILOTHOUSE

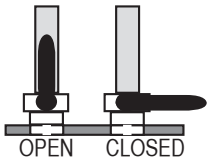
Unit is located beneath and forward of the pilothouse helm to cool the pilothouse, dining area, galley, and HIS master head compartment.

MASTER STATEROOM AND MASTER STATEROOM HEAD

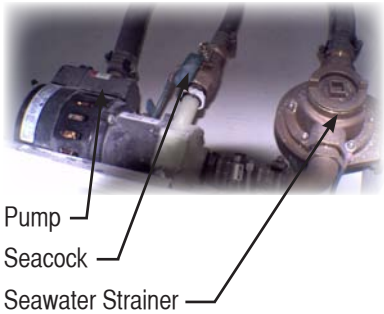
Unit is located behind the dresser in the master stateroom to cool the master stateroom and master head (or hers master head compartment)

VIP STATEROOM, VIP HEAD, GUEST STATEROOM, AND GUEST HEAD

Unit is located beneath the stateroom berth.



STEP 1 and 4: Seacock Detail



STEP 1: A/C Pump and Sea cock Detail (Typical) 720 Similar

PRODUCING HEAT

The evaporator/blower in master stateroom and VIP stateroom each contains a heater strip, which when turned ON, allows the evaporator/blower to blow warm air.

The air conditioning system produces heat when operated in reverse cycle mode. Reverse cycle operation is affected by the temperature of the seawater. The air conditioning system's ability to produce warm air decreases as seawater temperature decreases. Marquis recommends not to operate the air conditioning system in reverse cycle mode when the seawater temperature is below 40°F.

POWERING THE AIR CONDITIONING

1. Close the air conditioning seacock.
2. Remove and clean the air conditioning system's seawater strainer. The strainer prevents debris in the seawater from entering the air conditioning system. The strainer is located in the engine room forward of the STDB engine.

CAUTION

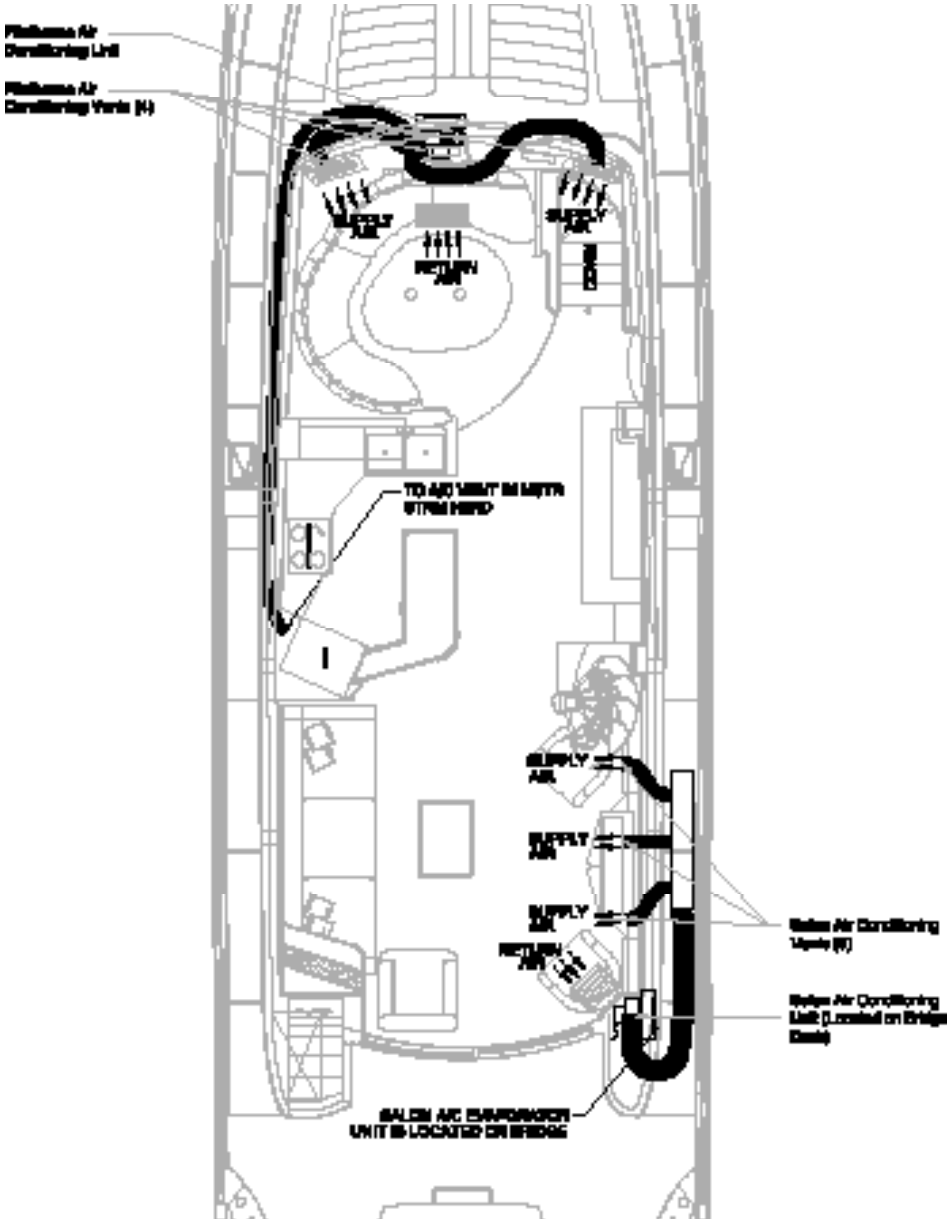
DO NOT SWITCH THE A/C SYSTEM WATER PUMP BREAKER ON UNTIL AFTER THE SEACOCKS SUPPLYING THE AIR CONDITIONING SYSTEM WITH SEAWATER HAVE BEEN OPENED. THE PUMP AND SEACOCKS ARE LOCATED IN THE ENGINE ROOM, FORWARD OF THE STDB ENGINE.

3. Reinstall the seawater strainer. If the strainer leaks when the air conditioning seacock is opened, close the seacock, then check the strainer for correct installation.
4. Open the seacock. A single pump supplies the air conditioning units with seawater.
5. Supply AC power to the yacht. Refer to Section 3: *Shore Power* and/or *Generator*

POWERING THE AIR CONDITIONING (Continued)

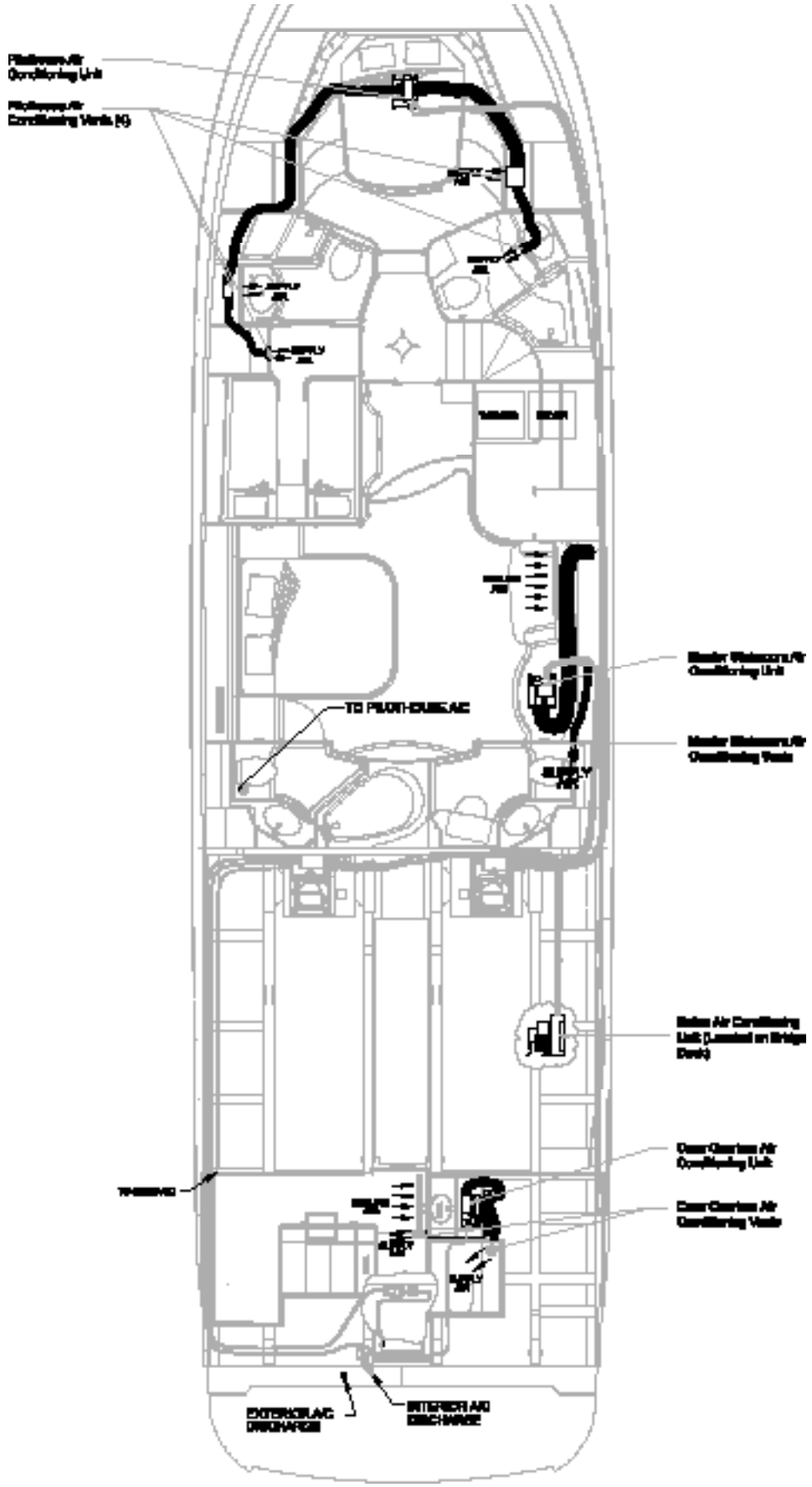
Power for instruction.

6. Switch the Forward, Amidships, Aft and Crew Quarters Sump Pump circuit breakers ON.
7. Locate the AC Bus 2 Distribution Panel, and perform the following steps:
   - 7a. Switch the AC Main Breaker AC Bus 2 circuit breaker ON.
   - 7b. Switch the A/C System Water Pump circuit breaker ON.
   - 7c. Switch the A/C System Compressor 1, A/C System Compressor 2 and, if present, Crew Quarters A/C Unit circuit breakers ON.
8. Verify that seawater is pumping through the air conditioning units. The seawater exits through the discharge thru-hull fittings on the side of the yacht.
9. Use the controls for each air conditioning unit to set the desired temperature. Refer to the OEM information for details on operating the air conditioning controls.

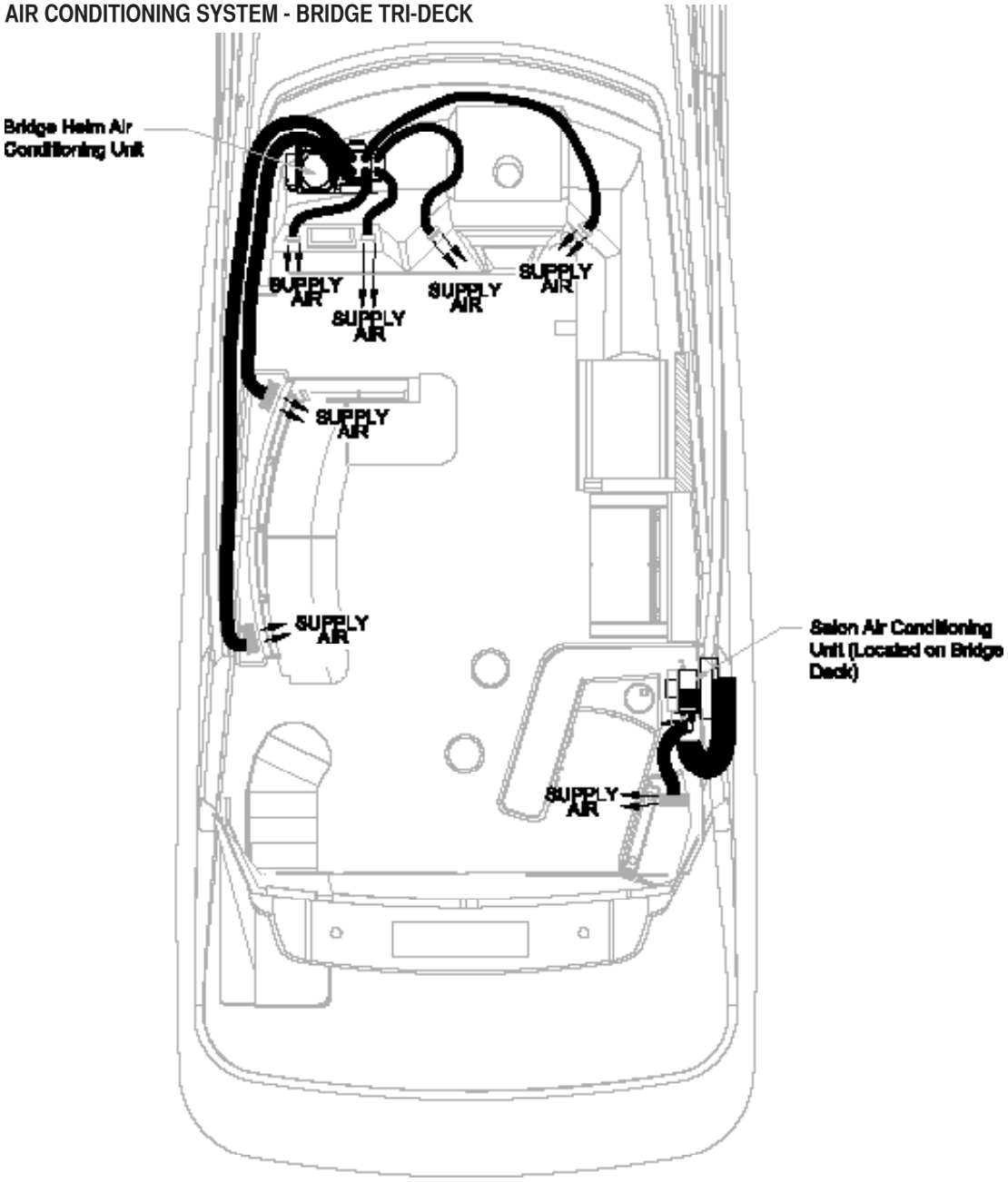


AIR CONDITIONING SYSTEM - SALON DECK

AIR CONDITIONING SYSTEM - STATEROOM DECK



AIR CONDITIONING SYSTEM - BRIDGE TRI-DECK



FRESH WATER SYSTEM

The fresh water system is divided between:

- Two 232 gallon fresh water tanks
- Two 16 gallon heater

The water tanks are located inside the engine room beneath the center catwalk. The water heater is located inside the master stateroom berth, beneath the mattress hatch.

NOTE: Thoroughly flush and sanitize the water system:

- Before initial use
- At least once each season
- Before flushing the system, Marquis recommends seeing your local dealer

Refer to Section 9: *Engine Room* for the location of the water tanks and water heater

FILLING THE WATER TANK

The fresh water tank is filled through a deck fitting with a plate labeled WATER. The plate is located on the STDB side deck amidships. See reference on next page.

NOTE: Thoroughly flush and sanitize the water system before initial use and at least once each season.

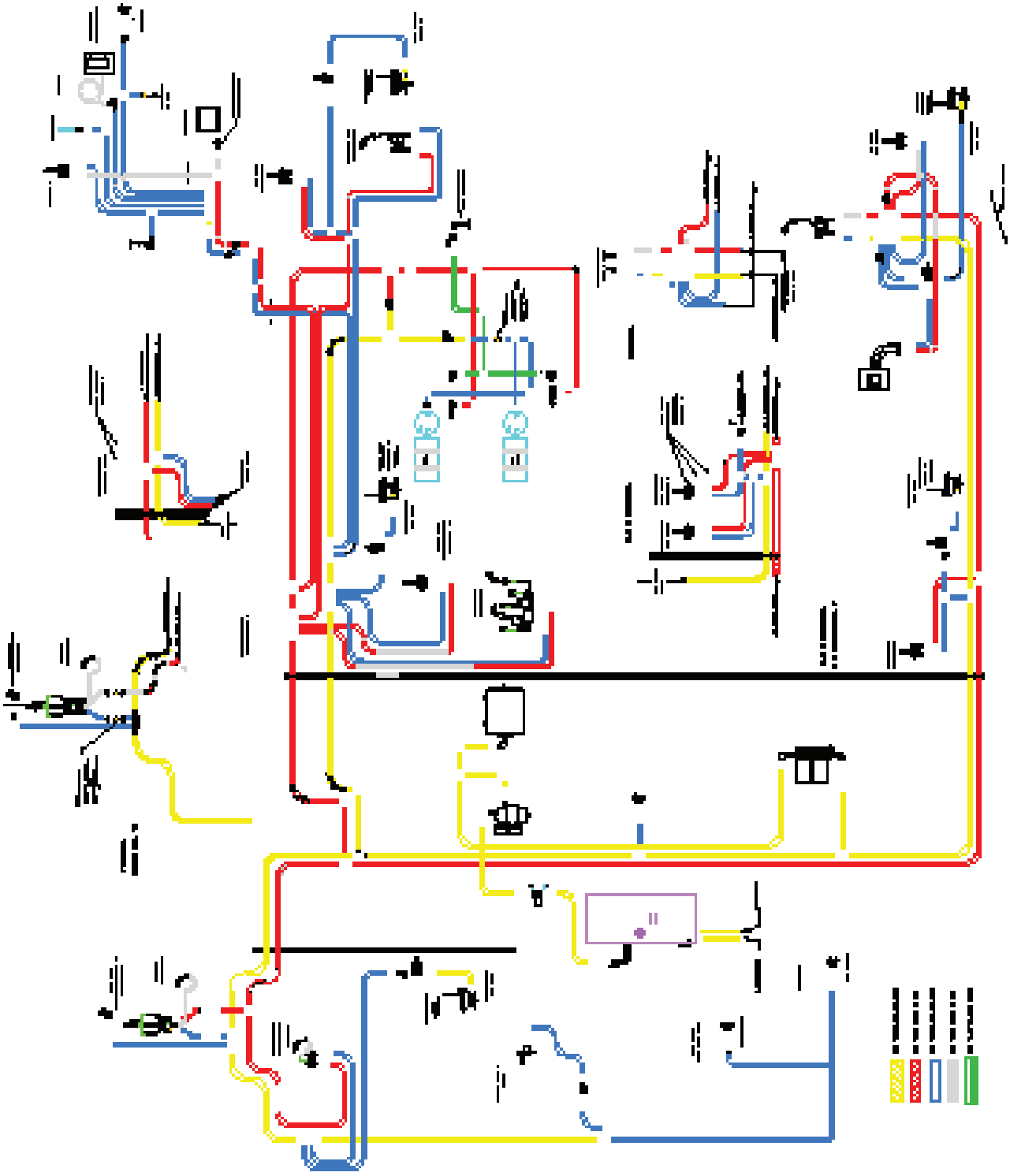
CAUTION

DO NOT OVERFILL THE WATER TANK, NOR LEAVE THE FILL HOSE UNATTENDED WHILE THE TANK IS BEING FILLED. OVERFILLING COULD RUPTURE THE TANK.

NOTE: Supply only clean, fresh, water into the water tank. The tank is full when water is discharged from the water tank vent. The vent is located in the hull, outboard of the WATER deck fitting.

FRESHWATER SYSTEM ENGINEERING SCHEMATIC

INTERNAL WATER SYSTEM



PRESSURIZING AND PRIMING THE WATER SYSTEM

PRESSURIZE AND PRIME THE WATER SYSTEM ONLY AFTER THE FRESH WATER TANK IS FULL.

11 Gallon Tank - Shown (20 gallon similar)

PRESSURIZING AND PRIMING THE WATER SYSTEM:

1. Provide power to the circuit breakers on the DC Bus Distribution Panel, located in the Engine Room Aft Bulkhead.
2. Switch ON the FORWARD SUMP PUMP, MID SUMP PUMP, and AFT SUMP PUMP circuit breakers, located on the DC Bus (Engine room, aft bulkhead).
3. Close the water heater bypass valves, located near the heaters, to allow the fresh water to flow into the heaters.
4. Open the hot and cold shut-off valves on the hot water tank and close the bypass valve.
5. Partially open all cold water faucets, including: transom hand shower faucets and bow and transom fresh water washdown faucets.
6. Supply AC power to the yacht. Refer to Section 3: *Shore Power* or *Generator Power* for instructions.
7. Locate the AC Bus 1 Distribution Panel, located in the Engine Room Aft Bulkhead.
   a. Switch the AC Main Breaker AC Bus 1 circuit breaker ON.
   b. Switch the A/C Main Breaker Salon Panel circuit breaker ON.
8. Locate the AC Distribution Panel (Salon):
   a. Switch the AC Main Breaker ON.
   b. Switch the Pressure Water Pump circuit breaker ON, located on the AC Distribution Panel, in the Salon Aft cabinet. Turning the Pressure Water Pump breaker ON, activates the pressure water pump and pressurizes the water system. The fresh water system is primed when all of the air is purged from the system's pipes and hoses.
9. Monitor each sink tap and shower head starting from the yacht's aft.
10. Close the cold water faucet for the tap or shower head when a steady stream of water flows from the tap or shower head
11. Open the hot water faucet (the washdowns supply only cold water).
12. Again, close the hot water faucet for the tap or shower head when a steady stream of water flows from the tap or shower head.
    - The water system is primed when all systems are complete.
13. Add water to the fresh water tank to replace the water used in previous steps.

    The pressure water pump automatically shuts off when water pressure within the system increases to the manufacturers specifications. Priming the system also fills and maintains the water level within the water heater.

USING THE WATER SYSTEM

The freshwater system is designed to operate the same as an in-home water system. Open a faucet to receive fresh water after filling, pressurizing, and priming the fresh water system. The pressure in the system decreases as water draws from the system. The pressure water pump automatically turns on and increases the pressure when pressure decreases. The automated system ensures a steady flow of water any time a faucet is opened.

Occasionally, re-priming may be necessary for a recently filled system or a system that has not been used for a while. Re-priming is normal, and is caused by an accumulation of air bubbles at the pressure water pump. To re-prime the fresh water system, repeat the steps under: *Pressurizing and Priming the Water System*.

A Tip From Marquis

To obtain the most consistent shower temperature: turn on the cold water faucet fully, then slowly turn on the hot water faucet until the water flowing from the shower head is at the desired temperature. This method keeps the pressure water pump running and eliminates widely fluctuating water temperatures.

WATER HEATERS

OPERATING THE WATER HEATERS:

1. Fill, pressurize, and prime the fresh water system. This automatically fills the water heater.
2. Supply AC power to your yacht. Refer to Section 3: *Shore Power* or *Generator Power*.
3. Locate the AC Bus 1 Distribution Panel in the Salon Aft, perform the following functions:
   a. Switch ON the AC Main Breaker AC Bus 1 circuit breaker.
   b. Switch ON the Water Heater 1 and 2 circuit breakers.
4. Refer to the OEM information for details on operating the water heaters.

CAUTION

DO NOT SUPPLY POWER TO THE WATER HEATER WHILE EMPTY. DAMAGE MAY OCCUR TO THE HEATING ELEMENT. FILL, PRESSURIZE, AND PRIME THE FRESH WATER SYSTEM BEFORE TURNING ON THE WATER HEATER, AS DESCRIBED IN: *FILLING THE WATER TANK* AND *PRESSURIZING AND PRIMING THE WATER SYSTEM* IN SECTION 4.

SHOWERS AND SINKS

SHOWER

A shower is installed in each of the Head Rooms.

SINK

A sink is installed in each of the Head Rooms, Galley, and the Flybridge Wet Bar.

Used (grey) water from the sinks and showers drain into the sump. The sump is located below the yacht's waterline. A pump is needed to drain the sump and discharge its water overboard or into an optional gray water holding tank.

The sump pump operates automatically when water in the sump rises above the pump's manufactured level. The automatic operation occurs only when the FORWARD SUMP PUMP, MID SUMP PUMP, and AFT SUMP PUMP circuit breaker are ON. The breakers are located on the DC Bus Distribution Panel (Engine room, aft bulkhead).

TRANSOM HAND SHOWER

The transom hand shower supplies warm, fresh water after swimming or before entering the cockpit PORT weatherboard locker. The hand shower is especially useful when the yacht is operated in salt water. The hand shower is an integral part of the yachts fresh water system. Simply, turn on the faucet and adjust for the desired water temperature. The hand shower and mixing valve is located on the transom PORT side.

FRESH WATER WASHDOWNS (OPTION)

The optional bow and transom fresh water washdowns supplies water from the fresh water tank to washdown and clean the yacht. The fresh water washdown is, especially, useful if the yacht is operated in salt water.

A Tip From Marquis!

The fresh water washdown system draws water from the yacht's fresh water tanks. The amount of fresh water in the water tanks is quickly reduced by prolonged use of the washdown system.

USING THE FRESH WATER WASHDOWNS:

1. Locate the bow and transom mounted hose fittings. The bow mounted fitting is located on the fore deck in the fore peak locker. Two transom mounted fitting are located in the cockpit, one in each locker, located in the PORT and STBD weatherboards.
2. Attach one end of an appropriately sized nylon water hose to the fitting of choice.
3. Attach a nozzle to the other end of the hose.
4. Open the faucet at the base of the hose fitting to supply water to the hose.

NOTE: The Raw Water Wash Down System is an available option. The hose fittings are side-by-side and clearly marked . A complete explanation of the raw water wash down is provided at the end of this section.

SHORE WATER

A shore water fitting enables the fresh water system to draw water from a land water source while the yacht is docked. Shore water is not drawn from the onboard tank.

NOTE: Connecting to shore water bypasses the onboard fresh water tank and pressure water pump; water does not fill into the tank. The deck plate labeled WATER is the only way to fill the fresh water tank.

Switch OFF the Pressure Water Pump circuit breaker, located on the AC Distribution Panel (Salon) when connecting to shore water.

CAUTION

DO NOT LEAVE THE YACHT UNATTENDED WHILE CONNECTED TO SHORE WATER. WATER MAY DEVELOP ONBOARD IF A WATER LINE LEAKS.

CONNECTING TO SHORE WATER:

1. Locate the shore water fitting labeled SHORE WATER, located on the boarding platform's PORT transom, between the shore power cables.
2. Attach one end of a water hose to the shore water fitting.
3. Attach opposite end of the hose to the dock side water tap.
4. Close all sink and shower faucets.
5. Provide power to the circuit breakers on the DC Bus Distribution Panel.
6. Turn ON the FORWARD SUMP PUMP, AMIDSHIPS SUMP PUMP, AFT SUMP PUMP, and CREW QUARTERS circuit breakers.
7. Turn the dock side water tap ON.

SEA WATER WASHDOWNS

The optional bow and transom sea water washdowns is designed to use seawater to washdown and clean the yacht.

USING THE SEA WATER WASHDOWNS:

1. Locate the bow and transom-mounted hose fittings.
2. Attach one end of an appropriately sized garden hose to the hose fitting selected.
3. Attach the spray nozzle to the other end of the hose. The best type of nozzle to use is the "pistol grip" type that can be operated by squeezing your hand.
4. Make sure the sea water washdown seacock is closed. Remove and clean the sea water washdown system's seawater strainer. The strainer prevents debris in the seawater from entering the washdown pump. The strainer is located in the STDB aft bilge area. Refer to Section 9: Engine Room for the exact location of the strainer.
5. Reinstall the seawater strainer. If the strainer leaks when the sea water washdown seacock is opened, close the seacock, then

check the strainer for correct installation.

6. Open the seacock that supplies seawater to the sea water washdown pump. The seacock is located aft of the STDB engine. Refer to Section 9: *Engine Room* for the exact location of the seacock.
7. Turn the accessory battery bank master disconnect switch to the ON position.
8. Switch ON the MAIN circuit breaker, located on the DC Distribution Panel (Salon Aft Cabinet).

CAUTION

DO NOT OPERATE THE WASHDOWN PUMP WHILE THE SEACOCK SUPPLYING SEAWATER TO THE WASHDOWN SYSTEM IS CLOSED. OPERATING THE PUMP WITH NO SEAWATER CAN DAMAGE IT.

9. On the DC Control Center, switch the System DC Main circuit breaker "ON," then switch the Washdown Pump circuit breaker ON. This activates the yacht's sea water washdown pump.
10. The sea water washdown pump, when activated, creates pressure in the sea water washdown system. When the hose nozzle is closed, water pressure within the system increases to a predetermined point at which the pump automatically shuts off. When the hose nozzle is open, releasing water from the system, the pressure in the system decreases. When the pressure

WATER MAKER

The optional water maker purifies seawater (fresh or salt) to replenish the fresh water supply when fresh water is unavailable. The water maker is located in the PORT aft bilge area. (See next page for Illustration)

USING THE WATER MAKER:

1. Close the Water Maker seacock, if not already done.
2. Remove and clean the water maker's seawater strainer. The strainer prevents debris in the seawater from entering the water maker. The strainer is located near the water maker.
3. Reinstall the seawater strainer. If the strainer leaks when the water maker seacock is opened, close the seacock, then check the strainer for correct installation.
4. Open the seacock supplying seawater to the water maker. The seacock is located near the strainer.
5. Supply AC power the yacht. Refer to Section 3: *Shore Power* and/or *Generator Power* for instruction.
6. If SHORE POWER is used, press the Red SHORE circuit breaker group ON, located on the AC Bus 1 Distribution Panel, in the Salon Aft cabinet.

6a. If GENERATOR POWER is used, press the Red SHORE circuit breaker group ON, located on the AC Bus 1 Distribution Panel, in the Engine Room Aft.

Do not operate the water maker's water pump when the seacock supplying seawater to the system is closed. Operating the pump without seawater can damage the pump.

7. Switch the Water Maker circuit breaker ON, located on the AC Bus 1 Distribution Panel, in the Engine Room Aft. Refer to the OEM information for details on operating the water maker.

BILGE SYSTEM

The 720 Fly contains:

- 2 Standard Bilge Pumps
- 6 Automatic Bilge Pumps
- 5 Emergency Bilge Pumps

The bilge is the lowest point in the interior of the hull. Any water that accumulates in the hull will relocate to the bilge. Each bilge pump

can remove up to 3700 gallons of water per hour. The bilges include:

FORWARD BILGE

The forward bilge runs from the bow to the aft VIP stateroom bulkhead. The single forward bilge pump is located beneath the hatch in the VIP stateroom sole.

FORWARD AMIDSHIPS BILGE

The forward amidships bilge runs from the aft VIP stateroom bulkhead to the aft master stateroom bulkhead. The pair of forward amidships bilge pumps are located beneath the hatch in the forward master stateroom sole.

AMIDSHIPS BILGE

The amidships bilge runs from the aft master stateroom bulkhead to the forward engine room bulkhead. The pair of amidships bilge pumps are located behind an access panel below the STDB door of the master head tub enclosure.

AFT AMIDSHIPS BILGE

The aft amidships bilge runs from the forward engine room bulkhead to the aft engine room bulkhead. The pair of aft amidships bilge pumps are located beneath a hatch at the base of the aft engine room bulkhead. If the yacht was built for use in Europe, there is an additional hand bilge pump in the engine room.

An aft bilge that runs from the aft engine room bulkhead to the stern. The pair of aft bilge pumps is located in the aft bilge area beneath the lazarette storage/optional crew quarters entrance stairs.

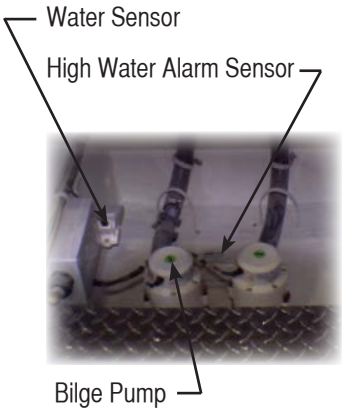
NOTE: Wipe up any oil that may have accumulated in the bilges before operating the bilge pumps. Pumping oil overboard contributes to water pollution, and is in violation of the Federal Water Pollution Control Act. Violators are subject to a substantial penalty.

CAUTION

NEVER STORE ITEMS IN THE BILGES. STORING LOOSE ITEMS IN THE BILGES MAY DAMAGE THE PUMPS, PIPES, OR OTHER COMPONENTS ESSENTIAL FOR PROPER OPERATION.

THE WATER IN THE BILGES MUST BE DRAINED BEFORE STORING FOR THE WINTER IF THE YACHT IS KEPT IN A CLIMATE WITH BELOW FREEZING TEMPERATURES.

FROZEN WATER IN THE BILGES MAY CAUSE SEVERE DAMAGE TO THE YACHT AND ITS COMPONENTS. REFER TO SECTION 8: *BILGES* FOR MORE INFORMATION ON WINTERIZING THE BILGES.



Bilge Pump Detail

BILGE PUMP OPERATION

Each automatic bilge pump can be operated either automatically or manually. The bilge pumps remove nearly of all the water that collects in the bilges. Use a sponge and bucket to remove the small amount of water that remains to completely dry the bilges.

Two high water sensors are equipped on the yacht. The sensors detect high bilge water, and an alarm sounds if detected. The most likely causes of high bilge water are:

- A hull breach
- Faulty bilge pump
- Faulty seacock/hose.

NOTE: The High Water Alarm circuit breaker on the DC Panel (Engine Room) must be ON at all times, so that the alarm will sound if high water is detected in the bilge.

AUTOMATIC OPERATION

The 720 Fly is equipped with 4 high bilge water sensors. An electronic water sensor switch is built-in to each automatic bilge pump. The sensor switch automatically turns the pump on when bilge water rises to the pump manufacturer's specified level.

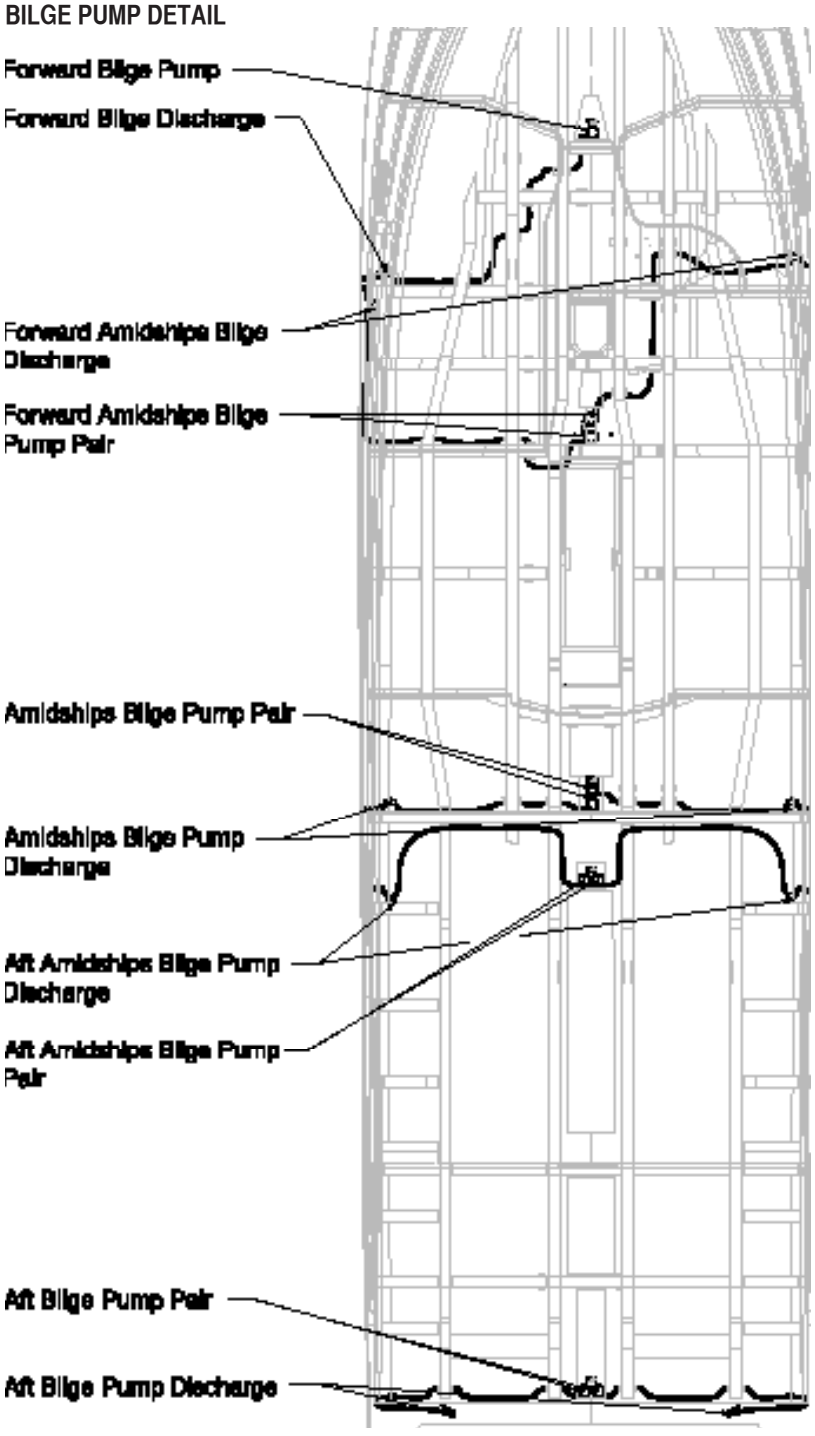
OPERATING THE PUMPS IN AUTOMATIC MODE:

1. Provide power to the circuit breakers on the DC Bus Distribution Panel.
2. Switch ON the BILGE PUMP 1 - BILGE PUMP 5 circuit breakers.
3. Periodically test each float switch by lifting the float, which turns ON the bilge pump or pump pair.

NOTE: The BILGE PUMP 1 - BILGE PUMP 5 circuit breakers should be ON at all times so that the pumps can oper ate in automatic mode when necessary.

Periodically testing each sensor is imPORTant to ensure the pumps are working properly.

BILGE PUMP DETAIL


Forward Bilge Pump
Forward Bilge Discharge
Forward Amidships Bilge Discharge
Forward Amidships Bilge Pump Pair
Amidships Bilge Pump Pair
Amidships Bilge Pump Discharge
Aft Amidships Bilge Pump Discharge
Aft Amidships Bilge Pump Pair
Aft Bilge Pump Pair
Aft Bilge Pump Discharge

MANUAL OPERATION

OPERATING THE PUMPS IN MANUAL MODE:

1. Provide power to the circuit breakers on the DC Bus Distribution Panel.
2. Locate the DC Bus Distribution Pane, located in Engine Room Aft:
   a. Switch the BILGE PUMP 1 - BILGE PUMP 5 circuit breakers ON.
   b. Switch the DC MAIN BREAKER SALON PANEL circuit breaker ON.
3. On the DC Distribution Panel (Salon Aft):
   a. Switch the PANEL MAIN circuit breaker ON.
   b. Switch ON the BILGE PUMP RELAY 1 - 5 BILGE PUMP RELAY circuit breakers.
3. Press the BILGE PUMP 1 - BILGE PUMP 5 switches, located at the upper and lower helm dash, to the UP position to activate the bilge pumps. (See Preface for Helm Switch Illustrations)

CAUTION

TURN OFF THE BILGE PUMP WHEN THE WATER DECREASES TO A LEVEL THAT PUMP CAN NO LONGER OPERATE. CAUTION IS ONLY NECESSARY IN MANUAL MODE. ALLOWING THE PUMP TO OPERATE WITHOUT WATER CAN DAMAGE THE PUMP.

A Tip From Marquis!

A small amount of water always collects in your yachts's bilge. The water is usually not enough to activate the automatic switch on the bilge pump. While underway, use the helm switches to manually turn the bilge pumps on, and let the pumps run for 30 seconds to one minute. When your yacht is on plane, water in the bilge flows to the stern, where the aft bilge pump is located. The amidships bilge pumps are near the lowest point in the hull.

HULL DRAIN

One hull drain is equipped on the yacht. The drain allows water to drain from the bilges while the yacht is in dry storage. The yacht and cradle should be positioned to allow water to flow toward the hull drain. The drain is located in the transom in the deepest POR-Tion of the hull's "V."

The hull drain will drain water only from the bilge area aft of the forward engine bulkhead. If there is a collection of water forward of the engine room bulkhead, it must be pumped out.

CAUTION

SECURELY TIGHTEN THE DRAIN PLUG INTO THE HULL DRAIN BEFORE LAUNCHING.

A Tip From Marquis!

Coat the threads of the hull drain plug with waterproof grease before you install the plug into the hull drain fitting. This makes it easier to remove the plug at a later date.

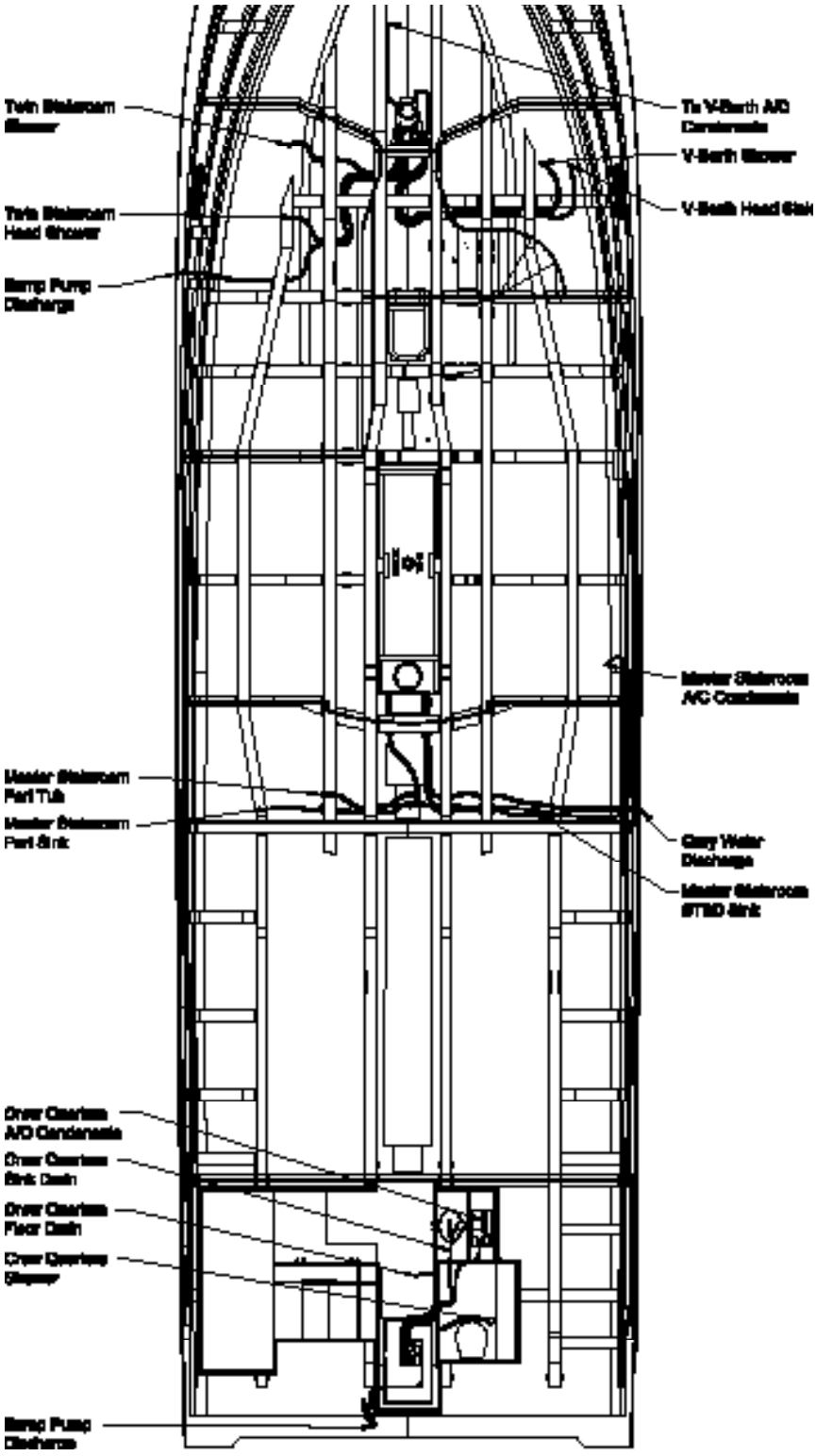
GRAY WATER SYSTEM

Yachts equipped with a Gray Water System are designed to have the sinks and shower drain into the Sump, water drainage is pumped to the Gray Water tank. Once the gray water tank is full, the tank can be emptied at dock side with the procedure described on the next page, titled: *Emptying The Waste/Gray Water Tank*.

The gray water tank is comprised of two separate tanks connected by a hose. Gravity forces the gray water from one tank to the other

tank through the hose, and equalizes the gray water in each tank. One tank is located on each side of the hull, aft of the fresh water tanks. See *Dockside Discharge* or *Overboard Discharge* in this section for emptying the tanks.

NOTE: **DISCHARGING WASTE OVER BOARD IS ILLEGAL IN MANY AREAS OF THE UNITED STATES. It is everyone's responsibility to comply with all applicable federal, state, and local laws when using the overboard discharge system. Discharging waste overboard in restricted areas will result in significant penalties.**



GRAY WATER SYSTEM

SANITATION SYSTEM

VACUUM TOILETS

The vacuum toilet system uses an electric pump to flush. Instruct guests on how to properly use the vacuum flush system. Refer to the OEM Information on proper toilet usage.

Operating the vacuum flush system:

1. Provide power to the circuit breakers on the DC Bus Distribution Panel, located in the Engine Room, aft bulkhead.
2. Switch ON the circuit breakers labeled: MASTER HEAD PORT, MASTER HEAD STBD, BOW HEAD, SIDE HEAD, AND CREW HEAD located on the DC Distribution Panel.
3. Check the level indicated on the DO NOT FLUSH panel located near each toilet.
   - If the tank light is lit, see Step 3a
   - If the tank light is NOT lit, proceed to Step 4.

   3a. Empty the waste tank if the indicator shows a reading of at least 3/4 full. (See *Emptying The Waste/Gray Water Tank* procedure on the next page)

   NOTE: A **WARNING** light in the Head Room will illuminate when the waste tank is 3/4 full. If the red indicator is not lit, proceed to next step.
4. Press the foot pedal at the base of the toilet to flush.

   NOTE: Raise up the flush foot pedal for additional water in the tank for flushing.
5. If the toilet bowl is dry, water can be added to the bowl by lifting up on the foot pedal. Lifting the pedal adds water without flushing.

The vacuum system may gradually lose vacuum pressure over time. When pressure in the system drops below the manufacturer's specified level, the vacuum pump engages automatically to bring vacuum pressure back to the optimum level.

NOTE: To eliminate the toilet vacuum pump noise, temporarily shut the pump off by using the Toilet switch. The switch is located on the PORT Bulkhead. Placing the switch in the OFF position shuts off the toilet's vacuum pump.

CAUTION

IF THE WASTE SYSTEM IS NOT GOING TO BE USED FOR TWO OR MORE WEEKS, FLUSH TWO TO THREE GALLONS OF FRESH WATER THROUGH EACH HEAD. FLUSHING WATER WILL FLUSH THE WASTE IN THE HOSES TO THE TANKS. REMOVING THE WASTE FROM THE HOSES WILL DECREASE ODORS ONBOARD.

EMPTYING THE WASTE TANK AND GRAY WATER TANK

The sanitation system contains two polyethylene waste tanks.

- PORT tank is located in the PORT forward corner of the engine room
- STBD tank is located in the STDB forward corner of the engine room.

Refer to Section 9: *Engine Room* for the exact location of the tanks. The two methods of disposing of waste are described below. Use waste tank deodorizer inside the waste tanks between pump-outs.

DOCKSIDE DISCHARGE

Using the dockside discharge method, waste is flushed from the heads to the waste tanks and stored until the waste is transferred to a dockside pumpout station.

EMPTYING THE TANKS:

1. Locate a dockside pumpout station.
2. Remove the three waste deck plates using the Waste Tank Deck Key supplied. See below for name and location of each plate:

2a. Forward and Aft Waste Plates are located on the forward STBD side deck (Forward Plate is the forward of the two)

2b. Crew Quarters Waste Plates are located on the PORT Transom

3. Attach the pumpout vacuum hose to the WASTE deck fitting. Make sure to have a secure connection between the transfer hose and the deck fitting.
4. Activate the pumpout vacuum. The pumpout vacuum transfers onboard waste to the dockside holding station.
5. Flush the waste tank(s), after all waste is removed by:
   5a. Pour several gallons of fresh water through the WASTE deck fitting.
   5b. Reattach the vacuum hose to the deck fitting, and activate the pumpout vacuum to remove the fresh water and any remaining waste.
6. Replace the deck plate(s).
7. Remove the STDB waste tank deck plate labeled WASTE using the supplied removal tool. The WASTE plate is located on the STDB side deck just forward of the fresh water deck plate. Refer to Section 9: *Deck Plates* for the exact location of the plate.
8. Repeat steps 3, 4, 5, and 6 for the STDB waste tank.

A Tip From Marquis!

The WASTE deck plate is not connected to the fitting and DOES NOT FLOAT. Be careful not to drop the deck plate when removing. You can order a replacement from your Marquis Dealer if you do lose the plate. WASTE deck plates are dropped overboard frequently enough that we suggest you carry an extra plate in your onboard spare parts kit.

OVERBOARD DISCHARGE

Discharging gray water overboard is against the law in some areas of the United States. It is the yachter's responsibility to maintain compliance with all applicable federal, state, and local laws when using the overboard discharge system. Significant penalties result for discharging waste overboard.

Discharging waste from the waste tanks into the sea is illegal in certain coastal areas of the world. For this reason, Marquis offers an optional overboard discharge system on yachts that are exported or used in the coastal areas of the United States.

With the overboard discharge system, waste is flushed from the toilets to the waste storage tank. In locations that overboard discharge is legal, the tanks can be discharged directly overboard.

If overboard discharge is not legal at your location, either wait until an area is reached where it is legal, or use a dock side pumpout station to empty the waste tanks.

EMPTYING THE WASTE TANK

1. Open the appropriate overboard discharge seacock located at the transom bilge area.
   1a. Forward and Aft Seacocks are located beneath the hatch in the forward master stateroom sole.
   1b. Crew Quarters Seacock is located in the STBD bilge compartment.
2. Turn the waste tank selector Y-valve to the selected tank to empty, either FORWARD or AFT. The Y-valve is located in the engine room near the Overboard Discharge Seacock. Refer to Section 9: *Engine Room* for the exact location of the Y-valves.
3. Provide power to the circuit breakers on the DC Bus Distribution Panel
4. Switch ON the OVERBOARD PUMP FORWARD, and/or OVERBOARD PUMP CREW QUARTERS circuit breakers, located on the DC Bus Distribution Panel.
5. Turn ON the appropriate Overboard Discharge Pump Switch. The switch is located near the overboard discharge seacock. The switch activates the overboard discharge pump, and pumps the waste overboard. Refer to Section 9: *Engine Room* for the exact location of the seacock.

CAUTION

TURN THE OVERBOARD DISCHARGE PUMP OFF WHEN THE WASTE TANK IS EMPTIED. THE PUMP CAN BE DAMAGED BY CONTINUING OPERATION WHEN THE WASTE TANK IS EMPTY.

EMPTYING THE WASTE TANK (Cont'd)

6. Turn OFF the overboard discharge pump switch after all waste is pumped overboard.
7. Remove the waste tank deck plate labeled, WASTE using the waste tank deck key supplied.
   8a. Forward and Aft Seacocks are located beneath the hatch in the forward master stateroom sole.
   8b. Crew Quarters Seacock is located in the STBD bilge compartment.
9. Flush the waste tank by pouring 2 to 3 gallons of fresh water through the WASTE deck fitting.

   EMPTYING THE CABIN WASTE TANK: Repeat Steps 2 - 9.
   EMPTYING THE CREW QUARTERS WASTE TANK: Repeat Steps 1 - 9.

10. Locate the DC Distribution Panel, and switch OFF the OVERBOARD DISCHARGE FORWARD and/or OVERBOARD DISCHARGE CREW QUARTERS circuit breakers.
11. Reactivate the overboard discharge pump and remove the fresh water and any remaining waste.
12. Turn OFF the pump, once complete.
13. Replace the WASTE deck plate.

A Tip From Marquis!

The WASTE deck plate is not connected to the fitting and DOES NOT FLOAT. Be careful not to drop the deck plate when removing. You can order a replacement from your Marquis Dealer if you do lose the plate. WASTE deck plates are dropped overboard frequently enough that we suggest you carry an extra plate in your onboard spare parts kit.

RAW WATER WASHDOWNS

The optional bow and transom raw water washdowns uses seawater to washdown and clean the yacht.

USING THE RAW WATER WASHDOWNS:

1. Locate the bow and transom mounted hose fittings. Each location is as follows:
   - BOW-MOUNTED FITTING: Located on the fore deck in the fore peak locker.
   - TRANSOM-MOUNTED FITTING: Located in the cockpit's PORT weatherboard.
2. Attach one end of an appropriately sized nylon water hose (with nozzle) to the hose fitting of choice.
3. Attach a nozzle to the opposite end of the hose.
4. Make sure the raw water seacock is closed, remove and clean the raw water strainer. The strainer prevents debris in the seawater from entering the washdown pump. The seacock, strainer, and pump are located in the bilge stern. Refer to section 9: *Bilge Compartments* for the exact location of the seacock, strainer, and pump.
5. Reinstall the seawater strainer and open the seacock. If the filter leaks when the seacock is opened, close the seacock and check the filter for the correct installation.
6. Open the Washdown Seacock to supply the seawater to the washdown pump.
7. Provide power to the circuit breakers on the DC Bus Distribution Panel.
8. Switch ON the Washdown Pump Circuit Breaker located on the circuit breaker on the DC Bus Distribution Panel.

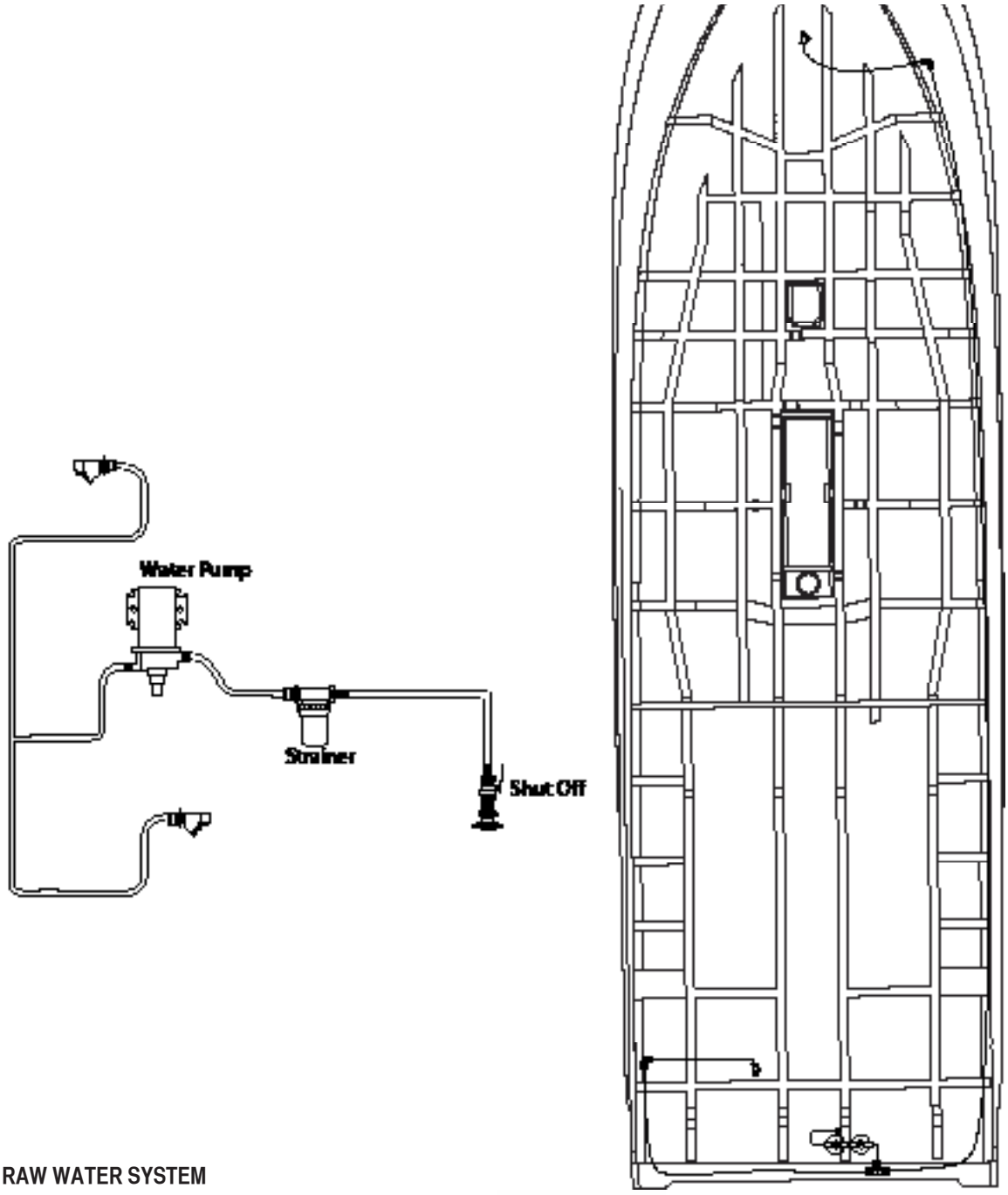
CAUTION

DO NOT OPERATE THE WASHDOWN PUMP WHEN THE SEACOCK SUPPLYING SEAWATER TO THE WASHDOWN SYSTEM IS CLOSED. THE PUMP CAN BE DAMAGED BY CONTINUING OPERATION WITHOUT SEAWATER.

The raw water washdown pump, when activated, creates pressure in the raw water washdown system. When the hose nozzle is closed, water pressure within the system increases to the design specifications, once reached, the pump automatically shuts off. When the hose nozzle is open, releasing water from the system, the pressure in the system decreases. When the pressure decreases to a predetermined point, the pump automatically turns ON and increases the pressure. The system settings ensure a steady flow of water every time the raw water washdown is used.

TRANSOM LEDGE/AFT BILGE AREA

The valves located along the transom ledge in the bilge area are all to be placed in the OPEN position. The valve open position allows water to drain from the air conditioning units, water heater, aft bilge pump, and cockpit areas. Close the valves while the yacht is stored for the winter.



RAW WATER SYSTEM

PROPULSION

A variety of inboard systems are available for individual yachts produced. Section 5 provides a general overview of the propulsion system and operation. For a detailed explanation of the engines, engine operation, and engine maintenance; refer to the OEM information provided with the yacht.

FUEL SYSTEM DIESEL

Each diesel propulsion engine onboard is plumbed to the fuel tank located on the same side as the engine. The diesel propulsion system uses fuel supply and return lines:

- The supply lines feed fuel to the engine
- The return lines transfer fuel not burned by the engine back to the fuel tank.
- The generator draws fuel from the STDB fuel tank only.

With the optional auxiliary tank available, the generator draws fuel from that tank.

CAUTION

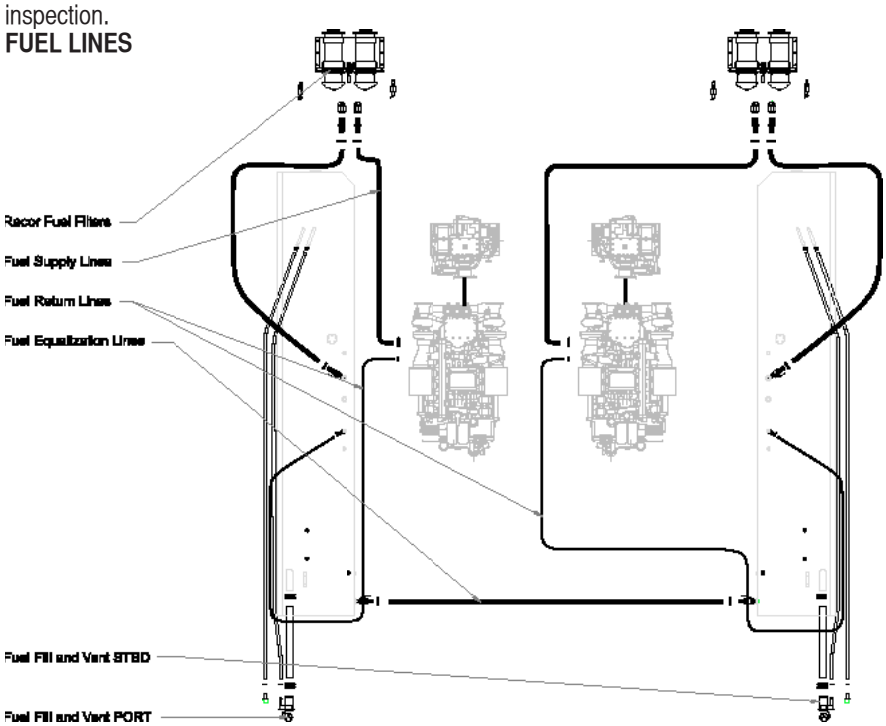
BEFORE USING ETHANOL-BLENDED GASOLINE, MARQUIS RECOMMENDS CONTACTING THE ENGINE MANUFACTURER TO ENSURE DAMAGE WILL NOT OCCUR TO THE ENGINE.

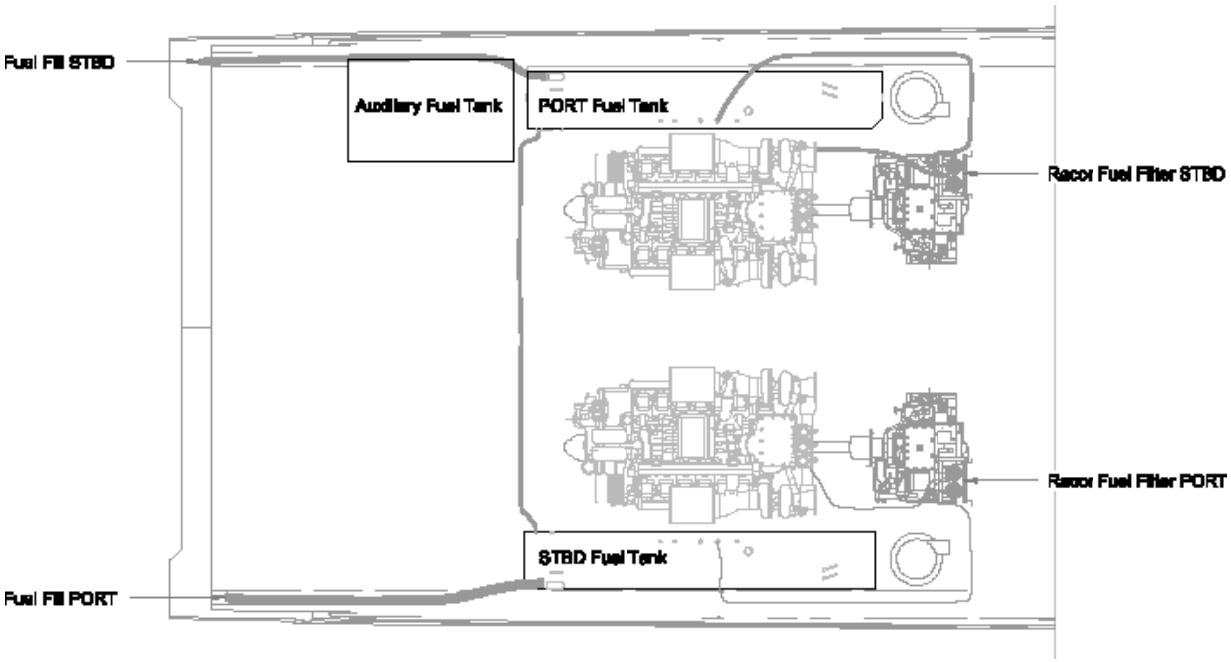
FUEL TANKS

A maximum of 1200 gallons of fuel can be held in two individual fuel tanks. The fuel tanks are located on the STDB and PORT sides of the engine room. An optional auxiliary 200 gallon fuel tank is also available, located in the PORT bilge compartment.

The fuel system meets or exceeds the standards set by the U.S. Coast Guard, the Yachting Industry, and the American Yacht and Yacht Council at the current time the yacht was built. Each fuel tank has passed rigorous tests performed by the tank manufacturer. The entire fuel system has passed Marquis's pressure testing and inspection. Your Marquis Dealer also makes a full inspection of the fuel system before the yacht is delivered. An entry on the Marquis Pre-Delivery Service Record verifies the dealer's completion of the inspection.

FUEL LINES





CAUTION

CORROSION CAN OCCUR IN TANKS OVER TIME. WATER CONDENSES INSIDE THE FUEL TANKS, ESPECIALLY IN HUMID REGIONS. WATER CAN REACT WITH THE FUEL IN THE TANKS TO CREATE A MIXTURE THAT CAN CORRODE THE TANK'S INSIDE. TO AVOID TANK CORROSION:

- **USE THE FUEL IN THE FUEL TANKS AS OFTEN AND AS COMPLETELY AS POSSIBLE.**
- **KEEP THE TANKS FULL OF FUEL WHEN STORED OR USED INFREQUENTLY.**
- **DO NOT PUT ALCOHOL-BASED FUELS IN THE TANKS.**
- **CHECK THE RACOR FUEL FILTER BOWLS FOR WATER ACCUMULATION ON A REGULAR BASIS.**

FUEL TRANSFER SYSTEM

The fuel levels in the tanks may become unequal during refueling, and while the generator is drawing fuel ONLY from the STDB fuel tank. IF THE FUEL LEVELS BECOME UNEQUAL:

1. Open the fuel valves on top of the tanks
2. Operate the fuel transfer pump from the helm, and observe the fuel gauges to determine when the fuel levels are equal.
3. Turn OFF transfer pump and close the valves.

NOTE: The fuel gauges are active when the ignition switches to the engines are ON.

- PORT engine: PORT fuel gauge and STDB
- Engine: STDB fuel gauge.

WARNING

ALWAYS CLOSE BOTH FUEL EQUALIZATION VALVES WHEN THE VALVES ARE NOT IN USE. FUEL COULD SPILL INTO THE ENGINE ROOM IF ONE OF THE VALVES DEVELOP A LEAK.

The fuel transfer switch is a two position switch, and will transfer fuel from one tank to the other depending on the switch position.

FUEL SUPPLY SHUT-OFF VALVES

Fuel supply shut-off valves are located on top of the fuel tanks, near the aft inboard corner. THE VALVES MUST BE OPEN WHEN OPERATING THE ENGINES.

SIGHT GAUGE VALVES

In addition to the fuel gauges located at the helms, there is a visual fuel sight gauge mounted on each standard fuel tank. Each sight gauge has two valves, located at the top and bottom of the gauge. To visually check the fuel level in a tank, open both of the tank's sight gauge valves.

FUEL TANK VENTS

Each fuel tank is vented overboard. As the fuel tanks get filled, air is displaced from inside the tanks, and escapes through the vents. However, when the engines are running, air enters the fuel tanks through the vents to displace the fuel being used.

AUXILIARY FUEL TANK

The optional auxiliary fuel tank comes with a fuel transfer pump, located in the engine room on the PORT aft bulkhead. Use the pump to transfer fuel from the auxiliary tank to either of the main fuel tanks.

Transferring fuel:

1. Open the fuel transfer shut-off valve on both the auxiliary fuel tank and the main fuel tank, PORT or STBD, that fuel will be transferred to.

   The shut-off valve on the auxiliary tank is located on the top of the tank near the aft edge; the shut-off valves on the main tanks are located just forward of the fuel supply shut-off valves.
2. Locate the fuel transfer pump. Select either the PORT or STDB main tank to transfer fuel to. Refer to the OEM information for details on operating the transfer pump.
3. Activate the transfer pump. Turn the pump OFF when the desired amount of fuel has been transferred. Fuel can be transferred to the other main tank if needed.
4. Close all of the fuel transfer shut-off valves once complete.

NOTE: Use the fuel level gauge located on the DC Distribution Center, located in the Salon, to monitor the fuel level in the auxiliary fuel tank.

ENGINE ROOM VENTILATION

The engine room is equipped with a ventilation system that consists of intake ducts, exhaust ducts, and bilge blowers. The ventilation system is designed to remove fuel vapor and excess heat from the engine room. The bilge blowers operate when the engines are running, as long as ALL four Bilge Blower circuit breakers are ON. The bilge blower circuit breakers are located on the DC Distribution Panel, in the Salon aft STDB.

The engine room ventilation system must be kept in proper operating condition. To maintain the ventilation system:

- Inspect the intake and exhaust ducts regularly to keep free of obstructions, make sure the ducts have not collapsed or torn.
- Inspect the blowers to ensure they are operating properly.
- Replace worn components with new components of the same type.

OPERATING THE BILGE BLOWERS:

1. Provide power to the circuit breakers on the DC Bus Distribution Panel.
   1a. Switch ON the DC MAIN BREAKER SALON PANEL circuit breaker.

OPERATING THE BILGE BLOWERS (CONT'D):

1. Provide power to the circuit breakers on the DC Bus Distribution Panel.
   1b. Switch ON the BILGE BLOWER PORT and BILGE BLOWER STDB circuit breakers.

The bilge blowers should now operate automatically when the engines are running.

MANUALLY OPERATING THE BILGE BLOWERS:

1. Locate the DC Distribution Panel (Salon Aft Cabinet), switch ON the BILGE BLOWER RELAY circuit breaker.
2. Turn the bilge blowers ON using the Bilge Blower switch, located at either helm.

COOLING SYSTEM DIESEL

Each propulsion engine has a closed cooling system that removes heat from the engine and the exhaust system. Closed systems use a freshwater/antifreeze mixture to cool the engine. The coolant mixture runs through a heat exchanger that transfers the heat to seawater taken in through a seacock for each engine.

Make sure that a sufficient level of coolant mixture is kept in each system. **Open the cooling system seacocks before starting the engines.** The inlet seacocks for each engine are located on the IPS drives. If unsure of the cooling system type installed, contact your Marquis Dealer.

Both open and closed cooling systems require seawater to function. Before each cruise, make sure the cooling system seacocks are closed. Also, make sure the strainers are free of seaweed and other debris. The strainers are located near the seacocks.

Open the cooling system seacocks before starting the engines. Make sure enough coolant mixture is available in each system.

- The seacock for each engine's cooling system is located near the forward inboard corner of the engine.
- The strainers are located near the aft inboard corner of each engine

Refer to Section 9: *Engine Room* for the exact location of the seacocks and seacock strainers. If a closed system is installed, make sure that a sufficient level of coolant is in the system.

WARNING

SERIOUS DAMAGE TO THE ENGINE AND RELATED SYSTEMS CAN INCUR BY RUNNING AN ENGINE WITH AN INADEQUATE SUPPLY OF ANTIFREEZE, OR OBSTRUCTED SEAWATER PICKUPS OR STRAINERS

After starting the engines, check the engine exhaust outlets. Refer to Section 9: *Thru-Hull Fittings* for the location of the engine exhaust outlets. If water is not being ejected from the outlets:

- Immediately shut down the engines.
- Determine why seawater is not pumping through the system.
- Correct the problem before restarting the engines.

The cooling system may need to be repaired if an above normal temperature registers on the engine temperature gauge. If the engine temperature quickly rises, IMMEDIATELY shut OFF the affected engine, and have the cooling system inspected and repaired.

EXHAUST SYSTEM - DIESEL

The exhaust system for each engine consists of an exhaust manifold, exhaust piping, muffler, and the exhaust hoses used to vent the exhaust to the atmosphere. Carbon monoxide may escape and endanger everyone on board if the exhaust system contains leaks or obstructions, or has any other problem that prevents exhaust from venting properly. Check the exhaust system regularly for proper operation. Change in engine noise could indicate an exhaust system problem, and should immediately be investigated.

FIRE SUPPRESSION SYSTEM

A total of three automatic fire suppression systems are installed onboard The locations are as follows:

- Engine room aft bulkhead
- STBD Aft bilge compartments

- Transom Aft bilge compartment

The fire suppression systems provides extra security in the event that a fire occurs in the engine room. Refer to the OEM information for details on operating the fire suppression system. The system can also be activated manually by using a release control located at the outboard locker in the STBD cockpit.

WARNING

IMMEDIATELY EVACUATE THE ENGINE ROOM AND THE AFT BILGE AREA IF THE FIRE SUPPRESSION SYSTEM IS ACTIVATED. ASPHYXIATION CAN RESULT IF THE FIRE SUPPRESSION SYSTEM CHEMICALS ARE INHALED.

IMMEDIATELY VENTILATE THE ENGINE ROOM WITH FRESH AIR ONCE THE FIRE IS EXTINGUISHED AND THE SYSTEM IS DEACTIVATED.

The fire suppression system monitor is wired to an ignition switch. The monitor light should be ON when the ignition switch is turned ON. The monitor is installed below the helm controls.

The suppression system contains an engine shut-off circuit. The engines, bilge blower, and generator automatically shut off when the system activates for safety reasons. **DO NOT ATTEMPT TO RESTART THE ENGINES UNTIL AFTER THE FIRE IS OUT**, and any damage to the engines and fuel system has been repaired. The override switch, located on the system monitor, resets the engine shut-off circuit after the system has been activated, allowing the engines to be restarted.

New components that have the same designation or equivalent technical and fire-resistance capabilities must be installed when performing maintenance on the fire suppression system.

Fire Suppression Tank (Engine Room Aft Location)

Fire Suppression Tank (Transom Aft Location)

Manual Fire Suppression Release (STBD Aft Location)

ENGINE GAUGES

A Volvo Penta EVC display system on the instrument panel is equipped on the helm. The display panel monitors and displays the operation and condition of the propulsion systems while underway. The side of the instrument panel that the gauges are displayed on (PORT or STDB) determines the engine side that is in use. Become familiarized with the gauges before starting the engines for the first time.

The Volvo Penta EVC system display is an instrument that displays operating information about the engine and allows the user to communicate with the engine electrical system. Engine operation information is shown on the LCD display. The driver can select the display mode on the display panel with the aid of the five buttons on the front of the panel.

The four buttons to the left are used to display operating information in different ways. The button at the furthest right is used to adjust the display contrast and to access the configuration menu.

For a complete explanation of the panel and operations refer to the Volvo Penta operation manual found in the information supplied with the yacht.

FUEL GAUGES - INDIVIDUAL ANALOG GAUGES

The fuel gauges display the approximate amount of fuel in the fuel tanks. The gauges are not calibrated, and should not be regarded as an accurate method of measuring the amount of fuel in the tanks. Both fuel gauges remain OFF until the ignition switch for the PORT engine is turned to the ON position.

OIL PRESSURE GAUGE - LCD DISPLAY

The oil pressure gauge displays the pressure within the engine's lubrication system. The oil pressure reading changes as the engine speed changes. However, a noticeable decrease (either sudden or gradual) in the engine's oil pressure while the yacht is maintaining a constant speed may indicate one of the following:

- An oil pump failure
- A leak in the lubrication system
- Excessive engine wear

Each engine is equipped with a pressure alarm. The alarm sounds when each of the following occurs:

- The pressure in the lubrication system decreases below the manufacturers specified level.
- The engine is started
- When the ignition switch is ON and the engine is not running.

In each of the above situations, the engine does not yet have adequate oil pressure; the alarm is silenced as soon as the oil pressure increases to within the normal operating range. Refer to the engine OEM information for the normal operating range. However, check the oil pressure gauges if the alarm sounds after the engine has been running for a while, or if the alarm is not silenced within 15 seconds after starting the engine. If either gauge indicates abnormally low oil pressure, immediately shut down the affected engine.

It is important to visually monitor both oil pressure gauges while running the engines even with the low oil pressure alarms installed. If a pressure gauge indicates low oil pressure, immediately shut down the affected engine.

The engine manufacturer has established a minimum oil pressure rating for the engines, as listed in the engine OEM information. To avoid damaging the engines, shut each engine down if the oil pressure is below the minimum rating.

TACHOMETER - LCD DISPLAY

The tachometer displays the speed of the engine in revolutions per minute (RPMs). The displayed engine speed is NOT the yacht's speed over the water or the speed of propeller rotation.

The engine manufacturer has established a maximum RPM rating for the engines, as listed in the engine OEM information. DO NOT exceed the maximum RPM. Doing so could damage the engines.

TEMPERATURE GAUGE - LCD DISPLAY

The temperature gauge displays the temperature of the coolant in the engine's cooling system. Every engine is designed to operate within a specific temperature range. Refer to the engine OEM information for the normal operating range. A sudden increase in the temperature gauge reading could indicate that the cooling water intake system has become blocked, a water intake hose has failed, or the coolant system's water pump has malfunctioned.

Each engine is equipped with a temperature alarm. The alarm sounds when the temperature of the engine's coolant increases to OEM's specified level. If the alarm sounds, immediately shut down the affected engine.

It is important to visually monitor both temperature gauges while running the engines, even with high temperature alarms installed. Immediately shut down the affected engine if a temperature gauge indicates excessive engine temperature.

The engine manufacturer has established a maximum coolant temperature rating for the engines, as listed in the engine OEM information. DO NOT exceed the maximum coolant temperature, doing so could damage the engines.

VOLTMETER - LCD DISPLAY

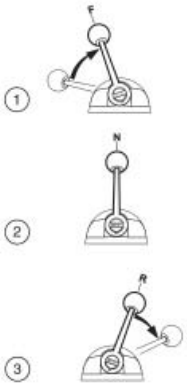
The voltmeter displays the amount of charge in the engine's battery. Each engine battery has its own voltmeter. As a battery is used, the voltage decreases and the amount is indicated on the voltmeter. Refer Section 2: *Monitoring Battery Voltage Levels* for additional

information on the engine battery voltmeters.

GAUGE MAINTENANCE

The gauges on the helm instrument panel should be protected from the sun and weather when not in use. The gauges are NOT waterproof. Protecting the gauges from the elements prolongs their life.

NOTE: Condensation can form behind the glass bezel on some gauges. The condensation does not mean the gauge is defective. The Marquis Limited Warranty does not cover the replacement of gauges that are cosmetically affected by condensation.



Shift-Throttle Lever Positioning

HELM CONTROLS

The helm controls allow the operative to engage with the engine's activity, control the yacht's speed, engine RPM's, and control the yachts direction.

SHIFT-THROTTLE LEVERS

Two shift-throttle levers allows the operative to shift the engines from, neutral to forward or neutral to reverse, to control the engines' RPM's. See below for lever position guide:

1. **Above Neutral Position**: Shifts the engines to forward and increases the RPM levels
2. **Center Position**: The engines remain in neutral at their lowest RPM levels.
3. **Below Neutral Position**: Shifts the engines to reverse and increases the RPM level

The shift/throttle levers are located on the STDB side of the steering wheel. The outboard lever controls the STDB engine, and the inboard lever controls the PORT engine. The engines can be shifted/throttled independently to improve maneuverability in tight quarters.

NOTE: Carver recommends operating the engines at the same speed while cruising. Doing so, reduces engine noise, engine vibration, and improves engine efficiency.

ENGINE SYNCHRONIZER

The engines are equipped with an automatic synchronization system.

NOTE: Refer to the OEM information for details on operating the engine synchronizer

SHIFT-THROTTLE, ENGINE INTERFACE, EVC CONTROL PANEL

SHIFT-THROTTLE AND ENGINE INTERFACE

The shift-throttle levers are connected to the engines by an electronic control system (Engine Interface). The function of the Shift-throttle levers is to control the engine speed.

EVC CONTROL PANEL

The EVC control panel is designed to allow the shift function to be disengaged.

NOTE: Refer to the OEM information for details on the shift-throttle control system.

WARNING

A GREAT RISK OF PERSONAL INJURY, OR PASSENGERS FALLING OR BEING THROWN OVERBOARD IS POSSIBLE WHILE OPERATING IN FULL LOCK. FULL LOCK DRIVING AT HIGH SPEED WILL MAKE THE YACHT TURN STRONGLY. WARN EVERYONE BEFORE MAKING EMERGENCY MANEUVERS.

STEERING

A power-assisted hydraulic steering system is installed on the 720 Fly. This system is superior to a mechanical steering system due to the fact that it provides a better response for large yachts. (Refer to page 12 for additional information)

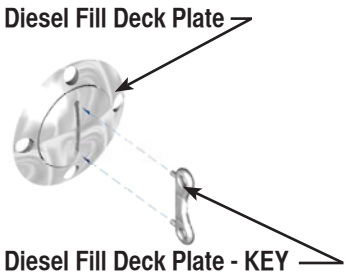
ACTIVATING THE HYDRAULIC STEERING SYSTEM:

1. Provide power to the circuit breakers on the DC Bus Distribution Panel.
2. Switch the Steering Pump circuit breaker ON.

The hydraulic steering system must have an adequate source of hydraulic fluid and sufficient pressure within the hydraulic pump and lines to operate properly. Refer to the OEM information for details on operating and maintaining the steering system.

PREPARING FOR CRUISING

Follow the steps below to safely fuel the yacht and operate the engines.



FUELING

1. Securely moor the yacht.
2. Close all portholes, windows, hatches and doors.
3. Turn OFF all devices that use electricity to operate or create electricity.
4. Extinguish all open flames and smoking material on the yacht and in the area around the fuel dock.
5. Turn OFF all battery master disconnect switches.
6. Have all passengers evacuate the yacht.
7. Estimate the amount of stored fuel is necessary.
8. Select the fuel tank to be fueled first.
9. Remove the appropriate DIESEL fill deck plate using the deck plate key supplied with the yacht. The deck plates are located on either side of the transom.

WARNING

AVOID SPILLING FUEL ON THE GELCOAT AND PAINTED SURFACES OF THE YACHT. FUEL CAN STAIN THE GELCOAT, PAINT, AND HULL ACCENT STRIPES (IF APPLIED).

WARNING

KEEP THE FUEL HOSE NOZZLE IN CONSTANT CONTACT WITH THE METAL FUEL FILL FITTING WHILE FUELING. CONSTANT CONTACT IS A SAFEGUARD AGAINST FUEL EXPLOSION CAUSED BY STATIC SPARKS.

CAUTION

USE THE CORRECT FUEL FOR THE ENGINES. REFER TO THE OEM INFORMATION FOR THE RECOMMENDED FUEL TYPE.

NOTE: The fuel tanks are designed to accept fuel at a maximum rate of 9 gallons per minute (GPM) when the tank is between 25% and 75% full. The pressure inside the tank must not exceed 4 psi during fueling. Many marine fuel pumps can deliver fuel at rates up to 35 GPM. A high fueling rate should **NEVER** be used, a high rate could damage the fuel system.

10. Decrease the fueling rate when fueling a tank that is either nearly empty or nearly full. Decreasing the rate helps prevent fuel surge when the tank is empty, and back up and spillage when the tank is full.

11. Begin pumping fuel at a rate of no more that 9 GPM into the fuel tank. When the tank is close to full, slow the fuel rate to less than 9 GPM.
12. Monitor the fuel tank air vents. Stop filling when the sound of the air exiting the fuel tank vents changes during the filling process. The sound will change significantly once the tank if full.
13. Replace the DIESEL fill deck plate.
14. To fuel the next fuel tank, repeat steps 9 - 12.
15. Wipe up all spilled fuel after each tank is filled.

OPERATING THE ENGINES

PRE START CHECK-LIST

1. Read and understand the Owner's Guide and all OEM information.
2. Check both fuel gauges to verify that the yacht is sufficiently fueled for the trip.
3. Inspect the engine room:
   - 3a. Check fuel system for any signs of leakage.
   - 3b. Check the bilge water level.
   - 3c. Check for oil in the bilge.
   - 3d. Check the crank case oil level in each engine.
   - 3e. Make an overall inspection of the engine room for signs of potential problems.
   - 3f. Follow all maintenance instructions as detailed in Section 7: *Maintenance*.
4. Turn ON the master disconnect switches for both engine battery pairs and the accessory batteries. (See previous page for Illustration)
5. Locate the DC Bus Distribution Panel (Engine Room):
   - 5a. Switch ON the MAIN circuit breakers, labeled: ONE & MAIN
   - 5b. Verify that all of the Safety circuit breakers are ON.
   - 5c. Switch ON the Bilge Blower PORT and Bilge Blower STDB circuit breakers.
6. Locate the DC Distribution Panel (Salon):
   - 6a. Switch ON the DC Main circuit breaker.
   - 6b. Switch ON the Bilge Pump Relay 1 - Bilge Pump Relay 5 circuit breakers
   - 6c. (OPTION) IF NAVIGATION EQUIPMENT IS INSTALLED AT THE HELM, switch ON the following circuit breakers: Converter Lower Helm, Converter Bridge 1, and Converter Bridge 2.
   - 6d. Switch ON any other circuit breakers for equipment that may be needed.
7. Verify that the navigation equipment circuit breakers in use are ON, breakers are located on the Bridge Breaker Panel.
8. Verify that all safety gear is onboard, and in proper operating condition, as required by Federal, State, and local regulations.
9. Verify that an adequate supply of fresh water is onboard.
10. Check the level of waste in the waste tanks, empty the waste if necessary. Refer to Section 4: *Emptying the Waste Tanks*.
11. Disconnect and store the shore power cord and shore water hose.

STARTING THE ENGINES

Refer to the OEM information for details on using the engine controls.

1. Open the cooling system seacocks for both engines.
2. Move both shift/throttle levers to neutral. (See Shift/Throttle Illustration on P. 79)
3. Select the desired engine to start first. **NEVER** start both engines at the same time.

WARNING

DO NOT HOLD THE IGNITION KEY IN THE START POSITION FOR MORE THAN 10 SECONDS. THE IGNITION SWITCH IS SPRING ACTIVATED. RELEASE THE IGNITION KEY AS SOON AS THE ENGINE STARTS. FAILURE TO RELEASE THE KEY MAY DAMAGE THE STARTER. IF THE ENGINE DOES NOT START WITHIN 10 SECONDS, RELEASE THE IGNITION KEY, AND TRY STARTING THE ENGINE AGAIN.

4. Turn the ignition switch clockwise to the start position. The engine should crank and start within 10 seconds. It is normal for the oil pressure alarm to sound for a few seconds after the engine has started. The alarm will silence once the oil pressure increases to normal operating range.

   The engine may run rough if started while cold. Advance the engine's throttle lever slightly to keep it running.

   NOTE: The electronic control system has a Shift/Cancel feature that allows the throttle to advance without engaging the shift. Refer to the OEM information for details on this feature.

5. Start the next engine, same as the first when the first engine is idling smoothly.

ONCE THE ENGINES HAVE STARTED

1. Check the engine gauges. Verify that all readings on the helm are within the normal range.
2. Verify that water is pumping through each of the engine's exhaust ports. The exhaust ports are located near the transom. Refer to Section 9: *Thru-Hull Fittings,* for the exact location of the exhaust ports.
   - 2a. Turn the affected engine off if water is not being pumped out.
   - 2b. Identify and correct the cause of the problem before restarting the engine.

WARNING

KEEP OUT OF THE ENGINE ROOM WHILE ONE OR BOTH ENGINES ARE OPERATING. THE ENGINE ROOM CONTAINS MOVING, HOT MACHINERY.

3. Allow the engines to warm up until the temperature gauges begin moving up before engaging drives.
4. Make sure all navigation systems are operating properly.
5. Periodically perform a visual inspection of the engine room while underway.

IMPORTANT: FUEL GAUGES

Marquis recommends monitoring and logging the amount of fuel added to each tank at fill up during the initial usage of the yacht. Compare the fuel usage to the fuel gauge indication at the time of fill up. The comparison should be made at least three (3) times:

- 1/4 to full
- 1/2 to full
- 3/4 to full

A fourth check should be performed if a safe condition is available that will allow the engines to run to near empty.

The readings will provide a better indication of the amount of fuel in the tanks in comparison to the fuel gauges. The readings provide security, and keeps the fuel tanks from being depleted. Marquis recommends starting all cruises with full tanks, especially cruises that take up at least 1/2 of the total tank capacity before coming to the next fuel station.

Engine Panel Gauges, Engine Room

Engine Panel Gauges, Engine Room

Engine Control Box, Aft Bulkhead

Hydraulic Pump

Hydraulic Steering Cylinder

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LAUNCHING THE YACHT

Have a professional launch the yacht. Your dealer can either provide experienced people or recommend someone to launch.

NAVIGATION

Understanding navigation is very important when out on the open seas. Instructions on navigation are beyond the scope of this guide. Reading *Chapman's Piloting and Seamanship,* to obtain instruction regarding navigation is encouraged by Marquis.

CHARTS

Water charts are available from the National Ocean Survey (NOS), a branch of the National Oceanic and Atmospheric Administration, Washington D.C. The NOS offers publications, listing the charts needed for local areas; however, inland rivers may not be included on the listing. Inland river charts are available from the U.S. Army Corps of Engineers district office. Your dealer may also have local water charts.

Keeping charts up-to-date is an important part of navigation. *The Weekly Notice to Mariners* is available from the Defense Mapping Agency or the U.S. Coast Guard is an excellent resource for updating charts.

COMPASS

The compass is the most important piece of navigation equipment onboard. To properly operate, the compass must be free of interference from local magnetic influences and electrical components. Refer to the OEM information for details on using and maintaining the compass. Marquis recommends having the compass compensated professionally when necessary.

HORN

Use the horn to alert other yachters of your presence when operating at night or in fog. The horn meets U.S. Coast Guard standards.

DEPTH SOUNDER

An optional depth sounder can aid to avoid entering shallow waters and can aid in navigation.

SHALLOW WATER OPERATION

Always pay attention to water depth while cruising. Shallow water navigation can be very hazardous. Avoid waters that are too shallow for the yacht's draft.

Navigating out of shallow waters:

1. Reduce speed immediately if crossing into shallow waters.
2. Consult nautical charts to determine the yacht's position.
3. Try to plot a course out of the shallows through waters deep enough for the yacht's draft.
4. Radio for help and wait until help arrives if the yacht runs aground. Do not attempt to relaunch the yacht. Serious damage may incur to the hull or underwater gear.

CONTROLLING THE YACHT

Every yacht owner should know how to perform the following procedures competently. Do not attempt the following procedures without first receiving appropriate training.

LOADING

When loading items onto the yacht, have someone on the pier hand the items on deck once boarded. Stow all items securely to prevent them from shifting once in motion. Distribute the weight evenly and keep the load low if the yacht is loaded near capacity or if seas get rough. DO NOT make abrupt changes in load distribution. Shift the load or move about only after stopping or slowing the yacht.

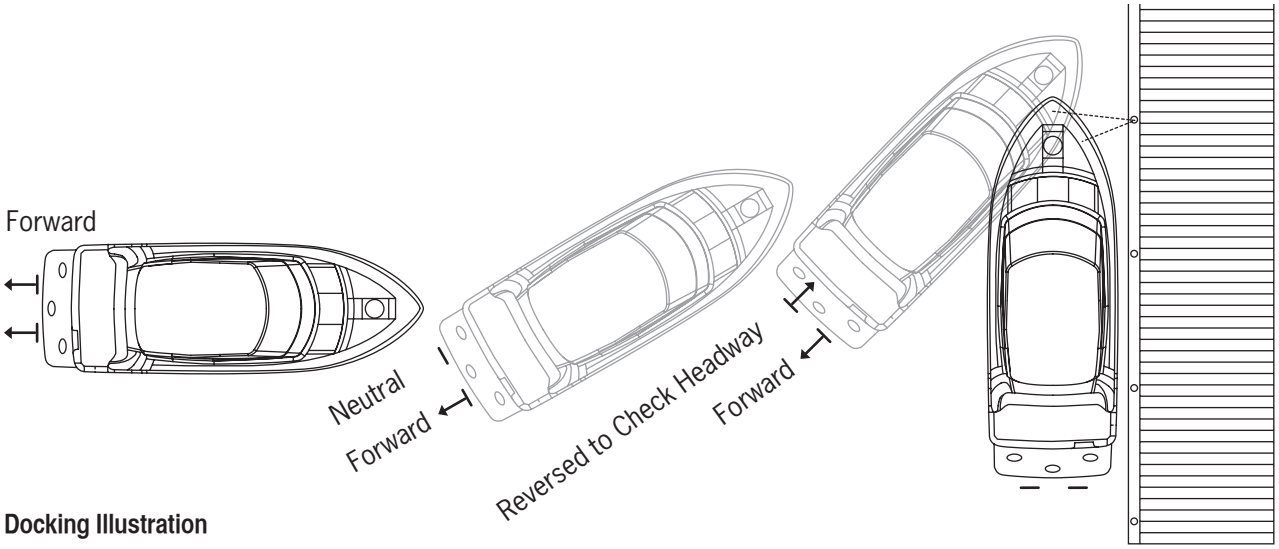
CASTING OFF AND DOCKING

Docking and casting off can be hampered by wind and current. It is important to use the current by approaching or leaving with the current instead of fighting against it. Also, the operator should adequately fender the yacht against collisions with docks or other yachts.

If a dinghy is used to reach the yacht, make sure the dinghy line does not foul the propeller. Start the engines after getting onboard, and send someone forward to slacken the line. Release the line.

In a river with current, the yacht will gain headway with the current. Power the yacht forward after clearing the buoy.

In a calm bay with neither wind nor current, back the yacht away a few yacht lengths. Powering forward, keep the buoy in sight, and give it ample room until clear. Run slowly until the anchorage has been cleared to avoid creating a nuisance with the yacht's wake.



Docking Illustration

LEAVING A PIER OR MOORING

Getting underway from a pier is accomplished by performing the following:

1. Take in all lines EXCEPT the bow spring.
2. Power the yacht forward, with a neutral rudder, using ONLY the engine farthest from the pier. The yacht will pivot around the bow spring line, moving the stern out and away from the pier.
3. Place a fender between the bow and the pier to prevent scraping as the yacht pivots about the bow spring.
4. Take the bow spring in and back the yacht away, once the stern is clear of yachts and other obstructions, .

Yachts are often secured to a mooring buoy at marina anchorages. Fouling the propeller with a mooring line is the principal hazard when leaving a mooring.

If a dinghy is used to reach the yacht, follow this procedure get underway:

1. Make sure the dinghy line does not foul the propeller.
2. Start the engines after getting onboard.
3. Send someone forward to slacken the line.
4. Release the line.

CONTINUE WITH THIS PROCEDURE IF IN A RIVER WITH CURRENT:

5a. Power the yacht forward after the buoy has been cleared.

CONTINUE WITH THIS PROCEDURE IF IN A CALM BAY (IF THERE IS NEITHER WIND NOR CURRENT):

5b. Back the yacht away a few yacht lengths.

6. Keep the buoy in sight, as the yacht is powered forward, and give the buoy ample room until clear.

7. Run slowly until the anchorage has been cleared to avoid creating a nuisance with your wake.

LANDING AT A PIER

Approach the pier at a right angle to land at a pier.

STDB LANDING

1. Place the rudders to PORT and reverse the PORT engine to check headway.
2. Leave the STDB engine in forward gear to swing the yacht parallel to the pier.

PORT LANDING

Turn the rudders to STDB, and put the STDB engine into reverse as the yacht comes in. If necessary, shift in and out of gear to control the yacht's speed.

PICKING UP, OR MOORING

1. Approach the mooring at slow speed.
2. Take note of how other yachts are moored. The approaching course should be roughly parallel to the others heading if they are heading into the wind or water current.
3. Stay clear of other moorings to avoid fouling them.
4. If a dinghy is being towed, station a crew member at the helm to keep the dinghy line from fouling the propeller.
5. Shift the engines into neutral when estimated that the yacht's forward momentum will carry the yacht to the buoy.
6. Station someone at the bow with a yacht hook to pick up the pennant float.

If your mark is about to be overshot:

7a. Check headway as the bow comes up to the buoy.

If you fall short of your mark:

7b. A few turns of the propeller should get the yacht to the buoy. Keep the engine running until the pennant eye has been secured on the bitt or bow cleat.

8. Get clear and calmly try again if passengers can not reach the pennant or if you overshoot.

MANEUVERING

The yacht's propellers rotate in opposite directions. Depending on which propeller is rotating, the yacht will track in different directions.

PORT PROPELLER ROTATING ONLY:

The yacht tracks forward and to STDB in forward gear and to PORT in reverse gear.

STDB PROPELLER ROTATING ONLY:

The yacht tracks forward and to PORT in forward gear and to STDB in reverse gear.

BOTH PROPELLERS ROTATING AT THE SAME SPEED:

The rudders amidships and the engines in forward gear, the yacht will track straight forward.

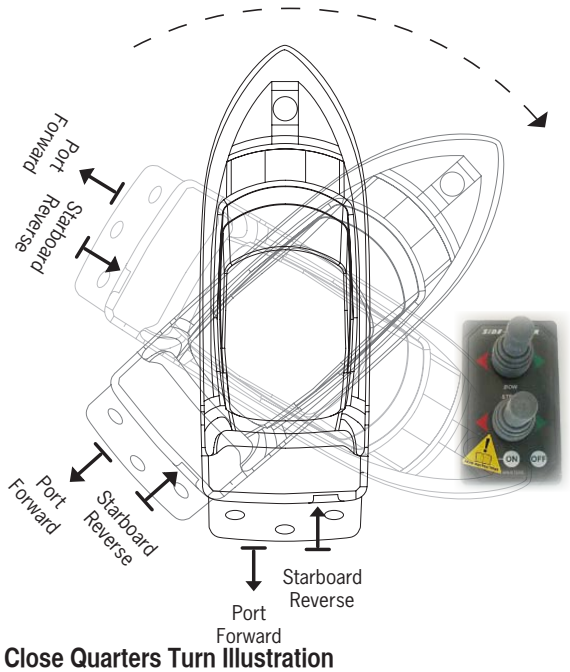
MOVING BACKWARD:

The yacht's rudders are not as effective; the side force from the propellers is used to steer the yacht.

MANEUVERING ASTERN

Backing a yacht may be necessary in a crowded marina. The yacht's twin engines allow the yacht to track straight astern or to either side. When backing, keep the trim tabs up. To make a turn to PORT, shift the PORT engine to neutral. A STDB turn astern is made by shifting the STDB engine to neutral.

Check sternway (stop reverse motion) by shifting the engines to forward gear and throttling forward. Full stern turns can be executed, but watch the bow. The bow cuts a much wider arc than the stern and collisions could occur in crowded areas.



Close Quarters Turn Illustration

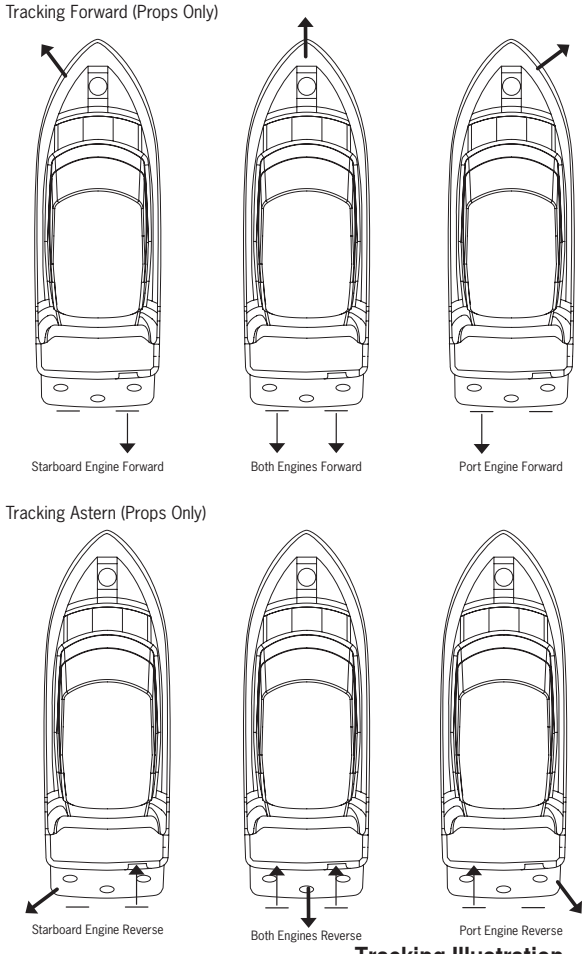
CLOSE QUARTERS TURNS

Executing a close quarters turn:

1. Check your headway
2. Shift one engine into reverse while shifting the other into forward gear. As you advance the throttles, the opposing forces cause the yacht to pivot about a point centered between the propellers.
3. Turn the rudders in the direction of the turn to assist the rate of turn.

BOW/STERN THRUSTERS

The stern thrusters use two control stations with dual joystick pads to maneuver the yacht in close quarters and for docking. Marquis recommends that the main engines remain in NEUTRAL while the Stern Thrusters are in use.



Tracking Illustration

CHECKING HEADWAY

Stopping the yacht's forward motion is referred to as "checking headway". It is important learn how to confidently stop the yacht within any required distance.

Check headway by shifting the engines to neutral and coming to a complete stop over a long distance, or by reversing the engines and stopping within a shorter distance.

TOWING

ALWAYS offer assistance to a vessel in distress. However, towing a capsized yacht or a yacht with a damaged hull is not recommended. Lend aid to the occupants, and call the proper authorities when towing is required. Remember, ALL YACHTERS ARE OBLIGATED TO LEND AID TO ANY PERSON IN DISTRESS, BUT NOT TO THE VESSEL. **DO NOT ATTEMPT TO TOW A DISABLED YACHT.** One disabled yacht is better than two.

ANCHORING

The anchor's holding power depends on the anchor's weight and the anchor line length. The most effective anchor line length is six to seven times the depth of the water. For example, if the water is 10 feet deep, the anchor line length should be 60-70 feet.

DROPPING THE ANCHOR

1. Approach the selected anchor site from downwind.
2. Come to a complete stop over the desired anchor drop spot. The anchor can be lowered from either the helm or from the bow with foot switches. To activate the foot switch at the bow, simply lift the cover.
3. Reverse the engines and slowly move the yacht backward to pay out more anchor line when the anchor hits bottom. The anchor flukes will dig in when the anchor is at the appropriately set.
4. Check for anchor drag, immediately after anchoring. Observe the shoreline landmarks.
5. Observe the landmarks again after thirty minutes.

6. Reset the anchor if the points of reference have changed.

DANGER

DO NOT DEPEND ON THE WINDLASS AS A FINAL ANCHORING RODE SECURING METHOD. THE WINDLASS IS NOT DESIGNED TO HOLD THE WEIGHT OF THE YACHT. DAMAGE TO THE WINDLASS IS LIKELY IF USING AS A SECURING METHOD.

WEIGHING IN

When weighing (pulling in) the anchor:

1. Weigh in the rode until vertical.
2. When the rode is taut, give a hard tug to pull the anchor's shank up.
   - 2a. If the anchor is stuck, wrap some of the rode around a bow cleat and keep tension on the rode. The yacht's momentum may free the anchor.
   - 2b. If there is a swell, wind the rode around a bow cleat when the bow drops into a wave trough. As the bow lifts, it may free the anchor.
   - 2c. If neither 2a nor 2b methods works:
     - 2c01. Pay out a few feet of rode
     - 2c02. Secure the rode around the bow cleat, and maneuver around the anchor.
     - 2c03. Keep the rode tight until you find the angle that pulls the anchor loose.

ELECTRIC WINDLASS

An electric windlass simplifies the above procedures. Follow the above procedures, and use the windlass control at the helm to drop anchor. To relieve strain on the windlass, hooks called devil's claws engage the chain when the anchor is down.

A Tip From Marquis!

ALWAYS tie off the anchor rope to the anchoring cleat to avoid potentially damaging stress on the windlass.

ADDITIONAL ANCHORAGE AND ANCHORAGE PROBLEMS

If intending to stay at anchor overnight or if anchored close to another structure, consider dropping another anchor from the stern. Additional anchorage prevents the yacht from swinging around if the wind or current shifts.

Paying out a few feet of line, and maneuvering around the anchor may be necessary if the anchor is stuck when weighing in. Keep the line tight until the correct angle is found that pulls the anchor loose.

If a swell occurs, hold the anchor chain in a vertical position and let a wave trough lift the bow.

Consider dropping another anchor from the stern if planning to stay at anchor overnight or if anchored close to another structure. Dropping a second anchor prevents the yacht from swinging around if the wind or current shifts.

Anchoring may be required in strong wind. If the spare anchor is dropped, make sure the two anchors are laid out at an angle. A trough may set for the second anchor if both anchors are set in-line and one of them drags.

WARNING

BE AWARE OF CARBON MONOXIDE (CO) POISONING WHILE ANCHORING. REFER TO SECTION 1: *YACHTING SAFETY* FOR DETAILED SAFETY PRECAUTIONS.

STERN ANCHORS

It may be necessary to use both, bow and stern anchors at the same time during anchorages. To drop both anchors:

1. Drop the bow anchor.

2. Pay out extra anchor line (15-18 times the depth).
3. Drop the stern anchor and adjust the length of line payed out on both anchors as necessary.

MOORING LINES

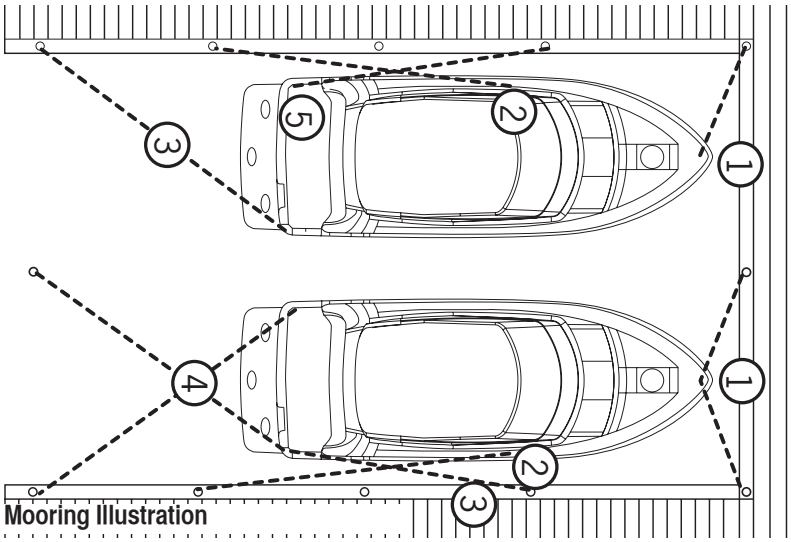
Become familiarized with mooring line terminology and mooring line use. Obtain training on mooring if necessary. Learn how and when to tie the various knots used in seamanship. Yachts that are not moored correctly can suffer and cause serious damage. The following information serves only as a guide to mooring the yacht.

The mooring illustration below demonstrates possible mooring lines for a small vessel. The lines include:

The **TOP** (Example 1) docking illustration shows how to tie up when docking in an alongside berth.

The **BOTTOM** (Example 2) docking illustration is used when tying up at four corners of the yacht.

The two spring lines are crossed and running to separate deck cleats. If possible, the stern line should be run to the offshore quarter cleat. Spring lines are useful in preventing undesired movement ahead or astern in a berth; they also keep a moored vessel in position when there is a significant rise or fall in tide.



Mooring Illustration

The above mooring illustration demonstrates possible mooring lines for a small vessel. The lines illustrated are as follows:

NUMBER	DESCRIPTION
1	Bow Line
2	Aft Bow Spring Line
3	Aft Quarter Spring Line
4	Stern Lines
5	Forward Quarter Spring Line

TOP ILLUSTRATION (Example 1):

Illustrates tieing up when docking the yacht in an alongside berth

BOTTOM ILLUSTRATION (Example 2):

Illustrates tieing up all 4 corners of the yacht

GETTING UNDERWAY

Becoming an “expert yachtsman” requires training and experience. Reading and understanding the provided information in this Owner’s Guide provides only part of the knowledge needed to operate a yacht safely and skillfully.

Marquis owners have a wide range of abilities, from seasoned yachtsmen with years of experience to absolute beginners with a new-found love for the water. Be honest with appraising your level of skill.

SHAKEDOWN CRUISE

Make sure that the following tasks have been completed before taking your first cruise:

1. Your Marquis Dealer has completed Pre-Delivery commissioning. The inspection is documented on the Pre-Delivery Service Document and is signed by the dealer.
2. All warranty registration cards have been completed and mailed.
3. The Owner's Guide and all OEM information has been read and understood.
4. The safety equipment onboard is in compliance with federal, state, and local regulations.
5. The yacht has been documented or registered, and displays the appropriate identification on the hull.
6. A representative from your Marquis Dealer has reviewed the operation of the yacht and its systems, and answered all of your questions to your satisfaction.

Pick a calm day for the first outing if possible. The shakedown cruise with a new yacht is not the best time to bring friends or guests along. Entertaining guests can be a distraction from the real purpose of the cruise, which is to become familiar with the yacht. ONLY bring people (spouse and children) who will be part of the regular crew. Invite the sales person who sold the yacht, or a member of your Marquis Dealer's service staff along for the ride.

Carry a pad and pencil during the first outing. Write down any questions that come to mind during the cruise. Discuss the issues with your dealer. Follow the procedures outlined at the beginning of this section for fueling and starting the yacht's engines.

ITEMS TO PERFORM ON THE FIRST OUTING:

- Proceed slowly.
- Have fun but remember that the objective of the cruise. The objective is to learn how the yacht operates and handles.
- Operate the engines at different RPMs.
- Try different trim angles.
- Monitor the gauges.
- Practice backing down and turning slow speed tight corners.
- Above all become familiar with the IPS Drive System.

OPERATING AT PLANING SPEED

The yacht is equipped a "planing" hull. A planing hull skims over the water rather than through it. Planing is performed by first reaching a certain speed, called planing speed.

The trim angle of the yacht increases, when accelerating from a dead stop, causing the bow to rise and the stern to drop. The yacht eventually achieves plane, if acceleration continues, which means the bow slowly drops to a more level attitude.

CAUTION

GET ON PLANE AS SOON AS POSSIBLE. AVOID SPEEDS THAT CAUSE THE YACHT TO PLOW THROUGH THE WATER WHILE IN A BOW-HIGH ATTITUDE. A BOW-HIGH ALTITUDE OBSTRUCTS VISION AND LIMITS THE YACHT'S HANDLING AND PERFORMANCE CAPABILITIES.

Once on plane, back the throttles off to a point where the hull is still planing but the engines are operating at a fuel-efficient speed.

TRIM TABS

A trim system is designed into the operational controls. Trim tabs help the yacht get on plane by allowing the operator to adjust the attitude of the yacht for variables such as: load, passengers, seas or wind. Use the tabs at planing speeds to make minor adjustments in the fore-to-aft and beam-to-beam angle of the yacht.

USING THE TRIM TABS:

1. Provide power to the DC Distribution Panel circuit breakers.
2. Switch ON the MAIN (Single circuit breaker), DC Distribution Panel, located in the Salon.
3. Switch ON the TRIM TABS circuit breaker, located on the DC Distribution Panel in the Salon.
4. Switch ON the Trim Tabs circuit breaker. A set of trim tabs controls are located at either helm. The controls consist of two switches. The PORT switch controls the STDB tab; the STDB switch controls the PORT tab. Each switch is labeled BOW UP and BOW DOWN.
5. Press both switches on the BOW UP side for 5 seconds before advancing the throttles. Pressing both switches lifts the trim tabs to the full UP position.
6. Advance the throttles to bring the yacht on plane.
7. Adjust the engine RPMs for cruising speed.

CAUTION

DO NOT OVERTRIM THE YACHT. OVER-TRIMMING CAN CAUSE THE BOW TO VEER AND MAY LEAD TO LOSS OF CONTROL. PRESS THE CONTROL SWITCHES FOR ONE-HALF SECOND AT A TIME, THEN ALLOW THE YACHT TO RESPOND WHEN ADJUSTING THE TRIM TABS. CONTINUE TO ADJUST THE TRIM TABS UNTIL THE YACHT IS AT THE DESIRED TRIM ANGLE.

CAUTION

PUT THE TRIM TABS IN THE FULL "BOW UP" POSITION WHEN THE SEAS ARE AT ANY ANGLE TO THE YACHT'S STERN. DO NOT CHANGE THE TRIM TABS' POSITION UNTIL THE SEAS ARE NO LONGER AT THE STERN.

The trim tab switches can be used together to bring the bow of the yacht to a lower attitude. This adjustment is often used when running into choppy seas. Bringing the bow down uses the sharper part of the yachts "V" hull to break through waves. Use the "BOW DOWN" side of both trim tab switches simultaneously to adjust the trim. Be careful when making bow down adjustments. Excessive bow down trim can cause considerable bow spray which hampers visibility and reduces control of your yacht.

LEVELING THE YACHT WITH THE TRIM TABS

Use the trim tabs individually to make beam-to-beam adjustments. If the majority of the onboard passengers are sitting on the PORT side, the STDB side of the yacht should be riding higher than the PORT side. Use the "BOW DOWN" side of the STDB trim tab switch to adjust the trim.

If the passengers decide to shift to the other side of the yacht, level the yacht by pressing the "BOW UP" side of the STDB trim tab switch for a few seconds. This undoes your previous adjustment. Then, use the "BOW DOWN" side of the PORT trim tab switch to adjust the trim.

MAINTENANCE SCHEDULE

The maintenance activities and the intervals listed on the following pages are provided as guidelines only. The ideal maintenance activities and maintenance schedule depend on the components installed on the yacht, and the manner and environment in which the yacht is used. The more frequently the yacht is used, the more maintenance that needs to be performed. If the yacht is used in salt water, more maintenance is required, especially on the exterior.

For maintenance instructions on many of the yacht's components, refer to the OEM information. Maintenance activities are divided into four types:

TYPE A MAINTENANCE

Perform Type A maintenance:

- 48 hours after first launching the yacht
- 48 hours after launching, following a period of onshore storage.

TYPE B MAINTENANCE

Perform Type B maintenance after the engines have operated for 25 hours following launching, whether the yacht is new or coming out of onshore storage.

TYPE C MAINTENANCE

Perform Type C maintenance semiannually, or after the engines have operated for 100 hours, whichever comes first.

TYPE D MAINTENANCE

Perform Type D maintenance annually, or after the engines have operated for 200 hours, whichever comes first.

MAINTENANCE LOG

Use a maintenance log to keep a record of the maintenance activities performed on the yacht. The log should list both the activities described in the following charts, and the maintenance activities for the OEM equipment as recommended in the OEM information. MAKE COPIES OF THE LOG AND KEEP THE COPY IN A SAFE PLACE.

	TYPE A	TYPE B	TYPE C	TYPE D
ENGINES AND DRIVE SYSTEM				
Perform maintenance as outlined in the engine OEM information.	Refer to OEM Information	Refer to OEM Information	Refer to OEM Information	Refer to OEM Information
Inspect water intake hoses and connections.		X	X	X
Inspect exhaust system hoses and connections.	X	X	X	X
Check prop for balance and nicks.				X
Check strut bearings.			X	X
Check rudder alignment.			X	X
Check all thru-hull fittings.			X	X
Inspect engine seals.	X	X	X	X
Check engine alignment.	X	X	X	X
Spray ignition switch with contact cleaner.			X	X
Tighten engine mounts.		X		X
Check fire suppression chemical tank.			X	X
CONTROL SYSTEM				
Make any necessary throttle and shift adjustments.		X	X	X

	TYPE A	TYPE B	TYPE C	TYPE D
STEERING SYSTEM				
Inspect linkage and connections.		X		X
Inspect hydraulic fluid levels.	X	X	X	X
Inspect rudder seals.	X	X	X	X
Inspect tiller tie bar linkage		X	X	X
Inspect trim tab reservoir		X	X	X
ELECTRICAL SYSTEM				
Inspect and clean batteries.		X	X	X
Check battery fluid levels.		X	X	X
Check operation of all 12-volt equipment.	X	X	X	X
Check operation of all AC equipment.		X	X	X
Inspect shore power cords.		X	X	X
Inspect generator water intake and discharge.		X	X	X
Inspect zincs anodes.	*	*	*	*
Perform generator maintenance.	Refer to OEM Information	Refer to OEM Information	Refer to OEM Information	Refer to OEM Information
FUEL SYSTEM				
Replace engine fuel filters.	Refer to OEM Information	Refer to OEM Information	Refer to OEM Information	Refer to OEM Information
Inspect for fuel leaks.	X	X	X	X
Inspect fuel lines for signs of chafe.		X	X	X
FRESH WATER SYSTEM				
Flush water tank and system.			X	X
Clean in-line water filter.			X	X
FIBERGLASS / WOODWORK				
Clean fiberglass.		**	X	X
Wax hull and all non-tread areas.		**	X	X
Repair chipped fiberglass.				X
Clean interior woodwork.				X
INTERIOR				
Perform maintenance on the head.	Refer to OEM Information	Refer to OEM Information	Refer to OEM Information	Refer to OEM Information
Inspect thru-hull fittings.	X	X	X	X
Clean refrigerator/freezer.			X	X
Clean range and microwave oven.			X	X
Lubricate door hinges and locks.			X	X
Clean vinyl fabrics and wall coverings.			X	X
Spot clean woven fabrics.				X
Spot clean carpet.				X
EXTERIOR				
Check compass for magnetic deviation.			X	X
Check Trim Tab system for leaks.		X	X	X

**Inspect the zinc anodes at least once every two weeks. Check with local marina or consult other local yacht owners to determine the average life expectancy of the yacht's zinc anodes. If a rapid deterioration of the zinc anodes is noticed, have a professional yacht corrosion specialist check: the yacht, local seawater, and dock.

** Owner is recommended to clean and wax fiberglass on a regular basis (monthly) but not as part of a 25 hour check by dealer

EXTERIOR (CONTINUED)	TYPE A	TYPE B	TYPE C	TYPE D
Clean Plexiglas surfaces				X
Lubricate hinges, latches, and locks			X	X
Wash weather covers				X
BILGE SYSTEM				
Check hull drain plug	X	X		
Check and test bilge pumps	X	X	X	X
Inspect sump pump(s)			X	X
Check and test bilge blowers	Each time before starting engine	Each time before starting engine	Each time before starting engine	Each time before starting engine

**Inspect the zinc anodes at least once every two weeks. Check with local marina or consult other local yacht owners to determine the average life expectancy of the yacht's zinc anodes. If a rapid deterioration of the zinc anodes is noticed, have a professional yacht corrosion specialist check: the yacht, local seawater, and dock.

** Owner is recommended to clean and wax fiberglass on a regular basis (monthly) but not as part of a 25 hour check by dealer

EXTERIOR MAINTENANCE

The *Exterior Maintenance* section explains how to maintain various materials located on the cabin exterior, and how to help keep the yacht looking new.

FIBERGLASS SURFACES

The exterior fiberglass surfaces are coated with a protective layer of gelcoat. Gelcoat forms a hard, smooth and durable surface. Gelcoat contains microscopic pores that can, over time, collect dirt and discolor if the gelcoat is not kept clean.

CAUTION

DO NOT USE ABRASIVE CLEANERS WHEN WASHING THE YACHT. ABRASIVE CLEANERS SCRATCH AND DULL THE GELCOAT.

WASH THE YACHT WITH FRESH WATER AFTER EACH OUTING TO HELP KEEP THE GELCOAT CLEAN. IF THE YACHT IS OPERATED IN SALT WATER:

- **WASH AT LEAST ONCE EVERY WEEK, EVEN IF THE YACHT HASN'T BEEN USED SINCE THE LAST WASHING.**
- **PERIODICALLY WASH WITH A SOLUTION OF FRESH WATER AND MILD SOAP.**
- **USE A SPONGE TO WASH SMOOTH SURFACES AND A STIFF NYLON OR NATURAL BRISTLE BRUSH TO WASH NONSKID SURFACES.**

WARNING

DO NOT WAX THE NONSKID SURFACES. WAXING MAKES THE NONSKID SURFACES SLIPPERY AND DANGEROUS TO WALK ON.

WAX ALL NON-TREAD AREAS AT LEAST ONCE PER SEASON. USE A HIGH QUALITY, NON-YELLOWING, MARINE WAX. WAXING PROVIDES A SHINY SURFACE AND SEALS THE PORES IN THE GELCOAT, MAKING IT EASIER TO KEEP CLEAN.

CAUTION

FREQUENT AND CONTINUED USE OF ABRASIVE POLISHING COMPOUNDS, EVENTUALLY ERODES THE GELCOAT.

FIBERGLASS SURFACES (Continued)

Gelcoat eventually dulls with age, much like the paint on a car. Restore the gelcoat's luster using an electric buffer and a very fine grade polishing compound. Ask your Marquis Dealer what brand and grade of polish to use.

Gelcoat stress cracks are common on all fiberglass yachts. The majority of stress cracks are cosmetic and limited to the gelcoat surface only. Gelcoat stress cracks are rarely an indication of structural problems. Contact your Marquis dealer if stress cracks are found.

NOTE: The repair of cosmetic (non-structural) gelcoat stress cracks is not included under the terms of the Marquis Limited Warranty.

GELCOAT REPAIR

Minor gelcoat nicks and cosmetic scratches are not difficult to repair, nor do either require the use of special or unique tools. Visually satisfying repairs takes little effort. Repairs to fiberglass laminates or structural fiberglass components are best left to the experienced technicians at your Marquis Dealer.

A gelcoat repair kit is available from your Marquis Dealer (Marquis part number **82036-03**). The kit includes: color matched gel, gel hardener, and detailed instructions on making gelcoat repairs.

GELCOAT BLISTERS

Fiberglass is a durable and economical material, however; it is not indestructible. Blistering is the most problem associated with fiberglass. The blisters generally form in the gelcoat or in the outer most layer of laminate. The blisters can range in size from microscopic to two inches or larger in diameter.

The fiberglass blister's appearance does not indicate structural problems or faulty hull lamination. Gelcoat blisters form resulting from a natural process, and are quite common. Contact your Marquis Dealer if blisters are discovered on the underwater portion of the hull.

HULL BOTTOM

The underwater portion of the hull is coated with a high-quality, factory-applied coat of anti-fouling bottom paint. The paint is applied after the hull has been carefully prepared. The paint has a high copper content and anti-fouling elements that retard the growth of marine life on the bottom of the hull. The anti-fouling elements in the paint have a limited life span, usually from one to three years, depending on how and where the yacht is used.

Inspect the hull bottom once a year. Repaint the hull if gelcoat is showing through the bottom paint. Use a paint that is compatible with the factory-applied paint. Failure to do so can void the bottom paint warranty. Also make sure the paint is formulated for the type of water the yacht is operated in. See your Marquis Dealer for assistance in selecting an appropriate bottom paint.

To prepare the hull bottom for painting:

1. Lightly sand the existing paint with 80 grit to 100 grit sandpaper.
2. Remove all dirt and sanding residue from the hull.
3. Apply the new paint using a sprayer. Using a sprayer applies the smoothest coating and the best hull efficiency.
4. Allow the first coat to dry before proceeding if a second coat will be applied.

UNDERWATER METAL COMPONENTS

The hull's underwater portion has been carefully prepared, primed, and coated with a high-quality, anti-fouling bottom paint at the factory. However, the underwater metal components, including the shafts, struts, propellers, trim tabs and thru-hull fittings, were NOT primed or painted at the factory.

The owner is responsible for priming and painting ALL underwater metal components. Use a high-quality primer and anti-fouling paint. Reprime and repaint the components when bare metal is visible.

NOTE: Painting the propellers requires special care to attain a smooth surface. A rough surface on the propellers will seriously affect the yacht's performance.

Contact your Marquis Dealer's Service Department if additional information is needed on priming and painting the underwater metal components.

CAULKING AND SEALANTS

Deck fittings, rail bases, windows, and all underwater fittings have been sealed with the finest quality sealants. The sealants, however, do not last indefinitely. The working action of the yacht, and the expansion and contraction caused by variations in outside temperature, eventually break down the sealant.

Fittings that have begun to leak must be resealed. Remove the fitting and clean the old sealant from both mating surfaces. Reseal the fitting using the sealant recommended by your Marquis Dealer.

STAINLESS STEEL RAILS AND HARDWARE

Stainless steel is NOT rust-resistant nor is it stain-resistant. When left in contact with the marine environment stainless steel DOES rust and corrode. Proper care helps keep the stainless fittings on the yacht looking bright and shiny.

Clean the stainless steel rails and fittings after each outing with either soap and water or glass cleaner.

If the yacht is used in salt water, clean the rails and fittings at least once every week, even if the yacht hasn't been used since the last cleaning.

If rust appears on the metal, remove it immediately with 3M Metal Restorer (Marquis part number 051131). Failure remove rust leads to irreversible pitting. Use brass, silver, or chrome polish to remove rust on stainless steel. Wax the stainless fittings and rails to help protect both surfaces from the elements and keep them looking their best.

Use the same wax on the fiberglass surfaces of the yacht.

NEVER

- **NEVER USE SANDPAPER, STEEL WOOL, OR OTHER ABRASIVES TO CLEAN STAINLESS STEEL FITTINGS OR RAILS.**
- **NEVER USE MINERAL ACIDS OR BLEACH TO CLEAN STAINLESS STEEL.**
- **NEVER LET STAINLESS STEEL COME INTO PROLONGED CONTACT WITH IRON, STEEL, OR OTHER METALS PROLONGED CONTACT COULD CAUSE CONTAMINATION LEADING TO RUST OR CORROSION.**

DECORATIVE STRIPING TAPE

A variety of decorative stripes are applied to exterior of the yacht. Striping tapes are custom-made to Marquis's color and size specifications. Replacement striping tape is only available through Marquis Dealers. To remove a damaged section of tape, heat the area with a hair dryer. Heating with a hair dryer softens the adhesive, and makes the tape easier to remove. Use acetone to remove the adhesive residue.

CAUTION

AVOID SPILLING FUEL ON THE STRIPING TAPE WHILE FUELING. FUEL DAMAGES THE STRIPING TAPE.

HATCHES AND WINDOWS

The hatch frames are fabricated from aluminum or stainless steel. Some frames are painted with enamel. To clean both the painted

and unpainted frames, use a sponge dipped in a solution of fresh water and mild soap. Do not use a brush or abrasive cleaner as they can scratch the painted frame surfaces, damaging the appearance.

The cabin windows are made from tempered glass. Clean them with a soft cloth and glass cleaner. The bridge wind screen is made from formed Plexiglas. Clean it with a solution of fresh water and mild soap.

EXTERIOR VINYL UPHOLSTERY

Refer to the OEM information for details on cleaning the exterior vinyl upholstery.

Avoid saturating the exterior cushions with water. To enhance the appearance of the exterior cushions and upholstery, occasionally treat each item with an approved vinyl protectant.

CAUTION

IF DR. VINYL HAS BEEN USED TO REPAIR DAMAGED UPHOLSTERY, DO NOT USE THE FOLLOWING CLEANERS ON THE REPAIRED AREA. FURTHER DAMAGE WILL INCUR:

- **DENATURED ALCOHOL**
- **3M CITRUS CLEANER**
- **AMMONIA AND HYDROGEN PEROXIDE**

EXTERIOR CARPET

Rinse the bridge and deck carpet with fresh water when cleaning the other portions of the yacht's exterior. If the exterior carpet becomes soiled, remove the carpet from the yacht, and wash the carpet with hot water and any brand of carpet detergent suitable for hot water extraction.

To remove stains from the carpet, refer to the carpet OEM information.

EXTERIOR ENCLOSURES

Exterior enclosures are made from a high-quality, marine-grade, vinyl-coated fabric. Clean this fabric at regular intervals (at least twice per year).

WHITE VINYL

White exterior enclosures are made from vinyl coated materials. Clean the enclosures with a sponge dipped in a solution of fresh water and mild soap. To remove heavy dirt, use a vinyl cleaner. Treat the vinyl with a vinyl protectant twice each season.

SUNBRELLA

Colored canvas enclosures are made from Sunbrella fabric. The fabric should be cleaned regularly before dirt accumulates and becomes embedded. The fabric can be cleaned without removing from the stainless steel bow supports. Refer to the OEM information for details on cleaning the Sunbrella fabric.

WARNING

DO NOT CLEAN THE EXTERIOR ENCLOSURE FABRIC USING ABRASIVE DETERGENTS OR SUBSTRATES CONTAINING SOLVENTS OR GASOLINE. THESE PRODUCTS WILL DAMAGE THE VINYL COATING AND OR THE FABRIC. BE CAREFUL IF USING HIGH-PRESSURE OR STEAM-CLEANING DEVICES AS IMPROPER USE COULD DAMAGE THE VINYL COATING AND/ OR FABRIC.

CLEANING THE EXTERIOR ENCLOSURES:

1. Apply a mild, lukewarm soap solution, such as liquid dishwashing soap, to the fabric using a soft brush or sponge.
2. Let the soap stand for a short period but do not allow the soap to dry.

3. Carefully rinse the fabric with fresh, clear water until all of the soap is removed.

CAUTION

DO NOT FOLD THE FABRIC WHILE WET OR DAMP TO PREVENT MILDEW BUILD-UP .

THE EXTERIOR ENCLOSURE FABRIC WAS TREATED BY THE MANUFACTURER WITH ANTI-MILDEW AGENTS; HOWEVER, THIS PROTECTION DOES NOT OFFER ABSOLUTE SAFETY AGAINST FUNGAL ATTACK.

4. Allow the fabric to dry thoroughly, then reuse or fold and store it.

CAUTION

THE EXTERIOR ENCLOSURE FABRIC IS SENSITIVE TO EXCESSIVE MECHANICAL STRAIN.

- **AVOID PULLING THE FABRIC OVER SHARP EDGES OR ROUGH SURFACES.**
- **DO NOT WALK ON THE FABRIC.**
- **FOLDED CORNERS ARE OVERSTRETCHED AND THEREFORE PARTICULARLY SENSITIVE TO FRICTION AND ABRASION.**

CAUTION

FABRIC MUST BE COMPLETELY DRY BEFORE STORAGE. MOISTURE ON STORED FABRIC CAN CAUSE THE GLASS TO CLOUD, AND THE FABRIC AND THREAD TO BREAK DOWN.

STORAGE

PREPARING THE FABRIC FOR STORAGE:

1. Thoroughly air dry the fabric.
2. If possible, store the fabric in a flat position (avoid rolling the fabric).
3. Avoid storing the fabric with the zipper(s) exposed to eliminate imprints into the next curtain.
4. Place the fabric in a dry, ventilated area.

When removing the fabric from storage, check for cloudy glass and zipper imprints. In most cases, both can be removed by hanging the fabric in the sun.

EXTERIOR WOOD TABLE

Exterior wood tables need regular care and maintenance. There is no warranty coverage provided by Marquis Yachts or the vender of Marquis once the table is exposed to daily temperature changes. Daily temperature changes affects wood when it naturally expands and contracts.

HIGH GLOSS FINISH TABLE

The exterior high gloss table is a custom ordered table that is requested by the dealer when the yacht is ordered. The exterior high gloss table comes without a warranty because it is used on the exterior of the yacht.

HIGH GLOSS CARE

The high gloss table should be cleaned weekly with non abrasive soap and water. Marquis recommends using 3M Perfect It Polish. The polish should be applied with a soft polishing pad to remove minor scratches and to protect the surface. When the table is not in use, it should be kept covered with a water resistant breathable cover.

TEAK TABLE

A teak table should be oiled monthly to keep the wood from drying out. When the table is not in use, it should be kept covered with a water resistant breathable cover to protect it from the elements.

The exterior teak table is an optional item; the warranty period for the table is the same as the yacht's limited warranty period. The warranty period for both items start from the date of delivery to the original owner.

FINISH REPAIR PROCEDURES

The following process is only a repair procedure. Items repaired may not be restored to their original pristine condition. The process will allow damaged areas to be repaired with amazing results.

WOOD FINISH BUFFING PROCEDURE

1. Clean surface with 3M cloths (3M #23589).
2. Identify the problem area and the sand affected area with 1200, 1500 & 2000 grit sandpaper.
3. Clean area with alcohol, and confirm that area is ready to be buffed, if not, repeat steps 1 - 3
4. Buff with a small amount of 3M Extra Cut Compound using the 3M 'Perfect It' Buffing Pad #05737 (White Color).
5. Apply a small amount of 3M 'Finesse It' Final Finish Compound using the 3M 'Perfect It' Buffing Pad #05725 (Black/Grey Color).
6. Repeat if necessary, if swirl marks appear.
7. Clean up area with 3M cloths (3M #23589) and 3M 'Clean and Shine'.

REMOVING DENTS IN WOOD FINISH

1. Apply water to the wood using a wet rag.
2. Apply heat to the wood, using either an iron or a hand steamer.
3. Sand area with 400 grit sandpaper.
4. Replace color with Triclad Water Base Stain 13-9810. Be careful not to get the material outside of the sanded area (doing so will result in a dark ring around the patch).
5. Apply Poly Sealer TH-20: 3 to 4 coats with a paintbrush
    - Allow 15 minutes between coats
    - Allow 2 hours to dry.
6. Apply Poly Topcoat SC-4185: 3 to 4 coats with a paintbrush.
    - Allow 15 minutes between coats
    - Allow at least 8 hours to dry.
7. Level patch with a razor blade and sand with 1200, 1500 and 2000 grit sandpaper, following buffing procedure on the previous page.

FILLING DENTS IN WOOD FINISH

1. Locate the correct Burn Sticks color to match finished wood.
2. Apply Burn in Balm around area of patch to protect wood from heat.
3. Melt material into dented or chipped area.
4. Level the patched area with an iron and remove any excess Burn Stick material.
5. Scuff area with 600 grit sandpaper.
6. Apply Poly Sealer TH-20 over affected area: 3 to 4 coats with a paintbrush.
    - Allow 15 minutes between coats
    - Allow at least 8 hours to dry.
7. Level patch with a razor blade, and sand with 1200, 1500 & 2000 grit sandpaper, following buffing procedure on the previous page.

REPAIRS FOR SURFACE DAMAGE OF TOPCOAT/SEALER

1. Apply Butyl Acetone to soften the material.
2. Remove white scratch mark with razor blade.
3. Scuff affected area, and sand with 600 grit sandpaper.
4. Apply Poly Sealer TH-20 to fill patch: 3 to 4 coats with a paintbrush
   - Allow 15 minutes between coats to dry, then sand with 600 grit sandpaper.
5. Apply Poly Topcoat SC-4185 to patch: 3 to 4 coats with a paintbrush
   - Allow 15 minutes between coats.
6. Let patch dry for at least 8 hours.
7. Level patch with a razor blade, then sand with 1200, 1500 and 2000 grit sandpaper, following buffing procedure on previous page.

REPAIRS FOR MAJOR DAMAGE THAT AFFECT WOOD COLOR

1. Remove all damaged areas, sand with 400 grit sandpaper until damage is gone.
2. Replace color to patched area:
   3a. Brush on color Triclad Water Base Stain 13-9810
   3b. Dab to blend out, be careful not to go outside the patching area (going outside may cause dark rings around the patch area).
3. Replace Poly Sealer TH-20: 3 to 4 coats with a paintbrush
   - Allow 15 minutes between coats
   - Allow 2 hours to dry.
   - Sand with 600 grit sandpaper.
4. Replace Poly Topcoat SC-4185: 3 to 4 coats with a paintbrush:
   - Allow 15 minutes between coats
   - Allow at least 8 hours to dry
5. Level patch with a razor blade, then sand with 1200, 1500 and 200 grit sandpaper, following buffing procedure.

MATERIAL LIST

PART NUMBER	MATERIAL
8103261	Triclad Water Base Stain 13-9810
8103203	Poly Topcoat SC-4185
8103210	Poly Sealer TH-20
8103213	Butyl Acetone
8103214	Polyurethane Sealer Spray Catalyst
8103211	Toner Catalyst TH-720
8103212	Topcoat Catalyst TH-2537
8697610	400 Grit Sanding Disk
8697229	600 Grit Sanding Disk
8697188	800 Grit Sanding Disk
8697618	1200 Grit Sanding Disk
8601218	1500 Grit Sanding Disk
8697496	15 Micron Polishing Disk
----	Burn in Balm from Mohawk
----	Burn Sticks from Mohawk

8601207	3M Extra Cut Compound (1st Buff)
8619411	3M Finesse It Final Finish Compound (Final Buff)
----	3M Perfect It Buffing Pad #05737 (White Color)
----	3M Perfect It Buffing Pad #05725 (Black/Grey Color)

INTERIOR MAINTENANCE

Ventilating the cabin as often as possible is one of the best ways to maintain the yacht's interior. DO NOT allow moisture to accumulate in the yacht's interior. Moisture leads to a damp, musty environment, which encourages mildew growth.

WOODWORK

Solid hardwood and hardwood veneer is used throughout the interior of the yacht. Treat the woodwork with special care. Dust it on a regular basis using 3M Clean and Shine and a soft rag.

NEVER

- **NEVER USE WAX-BASED FURNITURE POLISH OR CLEANER CONTAINING ABRASIVES.**
- **NEVER LAY WET OR DAMP TOWELS OR CLOTHING ON OR AGAINST THE FINISHED HARDWOOD SURFACES.**

The interior woodwork has been finished at the factory with a special industrial/commercial grade finish. If any of the woodwork needs to be refinished, contact your Marquis Dealer to order the appropriate product. Follow the manufacturer's instructions on the product package when applying the finish.

HIGH PRESSURE LAMINATE

High Pressure Laminate (HPL) is used on many of the cabinet faces and counter tops. HPL is very durable and easy to clean. Clean the laminated surfaces with a cleaner made for use on household counter tops. Avoid using the counter tops as cutting surfaces. The HPL surfaces can permanently be scratched.

GRANITE AND MARBLE

Granite is used for the counter tops and floors in the galley. Marble is used for the counter tops and floors in the heads and foyer, and as highlights in the master stateroom. Refer to the OEM information to properly care for the granite and marble.

FABRICS

The yacht interior fabrics include: drapes, pillow shams, bed spreads, woven headliners, and sofa and chair coverings. Some fabrics have been treated with a stain protector. All fabrics require periodic cleaning. For best results, dry clean the fabrics.

For furniture upholstered in Ultraleather, refer to the OEM information for details on cleaning the material.

LEATHER

For furniture upholstered in Ultraleather, refer to the OEM information for details on cleaning this material.

CARPET

The interior carpet has been treated with a stain protector; however, the carpet still needs periodic cleaning. Care for the carpet in the yacht the same as carpeting is cared for at home. Vacuum often, and shampoo as needed using carpet shampoo.

New carpet sheds, and needs to be vacuumed frequently. Shedding is normal, and will stop after a few weeks.

INTERIOR FIBERGLASS

Some interior components are made of gelcoated fiberglass, such as the shower stalls and stateroom berth platforms. Interior fiberglass can be cleaned with standard household cleaners intended for cleaning fiberglass. Many types of cleaners are marketed as "tub and tile" cleaners. DO NOT use abrasive cleaners on the interior fiberglass surfaces. Abrasive cleaners scratch and dull the shiny gelcoat surface.

PLEXIGLASS

The shower door, mirrored face of the head medicine cabinets, and other areas of the yacht are mode of Plexiglas. Clean Plexiglas surfaces with a solution of fresh water and mild liquid detergent. Remove fine scratches with a fine automotive acrylic rubbing and polishing compound.

CAUTION

DO NOT USE GLASS CLEANERS, ABRASIVE CLEANERS, OR AROMATIC SOLVENTS ON PLEXIGLAS. ABRASIVE CLEANERS ETCHES THE PLEXIGLAS.

MECHANICAL SYSTEMS

Mechanical Systems explains how to maintain the yacht's propulsion, electrical, fresh water, bilge and sanitation systems.

ENGINES/GENERATOR

Refer to the engine and generator OEM information for instructions on maintaining the yacht's engines and generator.

As an option, a seawater strainer may be installed in the water intake lines for each engine and the generator. At least once every 30 days, close the seawater seacocks, then open and clean the strainers. Refer to Section 9: *Hatches* and/or *Engine Room* for the exact location of the strainers.

Inspect the strainers more frequently if the yacht is operated in dirty waters or areas with a high degree of aquatic vegetation. A clogged strainer restricts the intake of seawater which can cause the affected engine or the generator to overheat.

THRU-HULL VALVES

Inspect the thru-hull valves on a monthly basis. Items to inspect are as follows:

- Make sure the connections between the hose and the valve are tight.
- Look for water leaks around the area where the valve and hull meet.
- Every 30 days, open and close each valve two or three times. Turning, guards against the valve seizing in the open or closed position.
- Make sure the valve handle is securely fastened. Tighten any loose handles. Refer to Section 9: *Thru-Hull Fittings* for the location of the thru-hull valves.

PROPELLER SHAFT SEALS

The propeller shaft extends through a shaft seal which is a watertight fitting. Check the shaft seal every month for leakage; contact your Marquis Dealer if signs of leakage are found.

DANGER

KEEP OUT OF THE ENGINE ROOM WHILE ONE OR BOTH ENGINES ARE OPERATING. THE ENGINE ROOM CONTAINS MOVING, HOT MACHINERY. CHECK THAT THE ENGINES ARE OFF BEFORE INSPECTING THE PROPELLER SHAFT SEALS.

PROPS

Inspect the props often. Keep a swim mask in the yacht to inspect the props while swimming. Out-of-balance or damaged props can diminish the yacht's performance by reducing speed, causing steering problems, and creating vibrations. Vibrations can lead to drive train damage.

Have the propellers balanced by an established propeller repair shop at least once a year. Repair or replace damaged props.

DANGER

WEAR GLOVES WHEN HANDLING THE PROPELLER. THE PROPELLER BLADES ARE SHARP.

A Tip From Marquis!

Consider purchasing and carrying a spare set of props onboard. Many marine dealers do not carry a full inventory of replacement propellers . A spare set allows your vacation or cruise to continue in the event that the primary set of props are damaged.

STRUTS

Propeller shaft struts require very little maintenance. Within each strut is a cutlass bearing that provides a smooth surface for the shaft to rotate. The cutlass bearings occasionally need to be replaced. However, bearing replacement is required more often if the yacht is used in sand or within other abrasive materials. Have a marine technician inspect the strut bearings when the yacht is pulled. Replace the bearings as recommended.

DC ELECTRICAL SYSTEM

Poor battery maintenance causes the majority of difficulties with the 12-volt DC electrical system. The factory-installed batteries should function normally for several years if properly maintained. The heavy-duty batteries can be discharged and recharged repeatedly without damaging them; however, completely discharging or overcharging a battery can shorten its life span.

To maximize the useful life of the batteries:

- Use the voltmeters to frequently monitor the voltage level of each battery or battery bank while the engines are running and the yacht is used.
- Monitor the charge level with the engines turned off (static condition).
- Recharge the batteries, when not fully charged, using the onboard battery charger or the engine alternators. Refer to Section 2: *Charging the Batteries* for more information. When the battery bank is fully charged, the voltmeter reads between 12.3 and 12.6 volts.
- Do not store partially charged batteries. Recharge each battery, if necessary. Check the voltage level every 30 days while the battery is in storage. Recharge if the voltage reads 12.3 or below.

WARNING

ELECTRICAL SHOCK MAY OCCUR IF THE BATTERIES ARE NOT DISCONNECTED DURING MAINTENANCE OF THE DC ELECTRICAL SYSTEM.

Inspect the batteries every month.

- Clean corrosion that has developed on the battery terminals.
- Spray terminal protector on the terminals and battery cable eye connectors.
- Make sure the battery cables are securely fastened to the terminals.
- Tighten the nuts only slightly beyond finger tight with a wrench.

Spray the connections for the bridge instruments and switches with an electrical connection protector every six months.

FRESH WATER SYSTEM

Flush and sanitize the fresh water system at least once every season.

- Flushing involves draining all water from the system.
- Sanitizing involves using a commercially-made fresh water tank sanitizing liquid that is available at many marine supply stores.

SHOWER

The water flow from a shower head may become restricted due to the accumulation of sediment in the shower head. Remove the head and rinse with clean water if water flow is restricted. If necessary, clean the discharge holes with a narrow wire.

WATER TAPS

Periodically remove and clean the filter screens from the sinks' water taps. Rinse the screens with clean water. If necessary, clean the screens with a narrow wire. A buildup of debris in the filter screens can block the water flow enough to cause the pressure water pump to repeatedly cycle on and off.

SUMP

Clean the sump and sump filter frequently. Hair, dirt, and soap scum collects in the sump, and if not removed, eventually can clog the sump pump or sump hoses. An infrequently used sump will promote bacteria growth in the sump. Bacteria growth will promote odors. In addition to keeping the sumps flushed clean, it is a good idea to add waste tank deodorant to the sump when used infrequently. The deodorant can easily be flushed down any of the drains that empty into it.

PRESSURE WATER PUMP

An in-line filter is installed near the pressure water pump. Clean the filter once a month. Refer to Section 4: *Fresh Water System* for a diagram of the exact location of the pump and filter.

WATER TANK VENT SCREEN

A fresh water tank vent is installed through the hull, above the fresh water tank fill plate. A screen is applied over the vent's opening to prevent dirt and insects from entering the fresh water tank. Clean the vent screen once every six months or twice a season.

BILGE SYSTEM

Keeping the bilges clean is important. A dirty bilge leads to clogged bilge pumps and unpleasant odors in the cabin. Keeping the bilges dry helps reduce moisture in the cabin. Tips to keep the bilge system clean:

- Periodically inspect and clean each bilge pump's strainer. The strainers prevent dirt and debris from clogging the bilge pump intakes. Refer to Section 9: *Engine Room* and/or Section 4: *Bilge System* diagram for the exact location of the bilge pumps.
- Frequently check the operation of each bilge pump float switch to ensure that it is operating properly.
- Clean the bilge pumps twice a season by wiping dirt or oil from their exterior surfaces.
- Remove any oil, dirt or debris from the bilges. Treat the bilges with a commercial bilge cleaner twice a season. Bilge cleaner is available from your Marquis Dealer.

SANITATION SYSTEM

The sanitation system requires ongoing maintenance to avoid problems:

- Always use sanitation system deodorizer. Use the brand recommended by your Marquis Dealer.
- The sanitation system on the yacht is not like the toilet and sewer in a home. DO NOT flush items down the toilet that the toilet was not designed to accommodate. Refer to the OEM information for details on maintaining the toilet.
- Empty the waste tank often. Make sure the tank is empty prior extended periods of time that the yacht is not in use.
- Flush the waste tank with fresh water each time the tank is emptied. Flushing with fresh water helps remove remaining waste from the tank.
- The senders in each tank may need to be cleaned, if waste gauges are reading incorrectly.

TEAK DECKING

Teak is a natural, sensitive material used on decks because of it's excellent properties. As a naturally growing material, it generates harder and softer section in the growth rings of the wood grain. Softer sections wear quicker than harder sections.

NEVER

NEVER SCRUB THE DECK WITH A HARD BRISTLE BRUSH. NEVER BRUSH WITH THE GRAIN.

The best way to clean the deck is with a rinse of clean salt water. **DO NOT** spray with a high pressure washer. If washing is needed, use a dish soap with a cotton mop and rinse well with salt water. If scrubbing is necessary use a soft bristle brush across the grain of the wood.

AVOID ALL CHEMICAL TEAK RESTORING MATERIALS. Some products remove the top layer of wood cells. Do not use oils. The oil may attack the sealant on the deck, Oil hods dirt and does NOT wash off. Repairs to the deck should be referred to your local Marquis dealer.

WINTERIZATION - STORAGE

The yacht must be properly "winterized" before storing for an extended period of time, while temperatures could fall below freezing. Winterizing the yacht consists of removing all water from its various systems. Water left on board could cause extensive damage to the yacht and internal systems.

Marquis recommends hiring a professional to perform the winterization of the yacht. Marquis also recommends storing the yacht in a dry, out-of-water, storage. Some winterizing procedures can be performed only, with the yacht is out of the water. Dry storage also provides the opportunity to thoroughly inspect the hull and underwater components for maintenance needs.

LIFTING

Hire an experienced professional to lift the yacht from the water. The individual should have the proper equipment and training in lifting yachts. The yacht's hull must be properly supported during the lifting operation to avoid serious and permanent hull deformation.

CAUTION

DO NOT PLACE A LIFTING STRAP AROUND THE YACHT'S IPS DRIVES OR OTHER UNDERWATER COMPONENTS.

USE APPROVED LIFTING STRAPS. "SLING" TAGS ARE LOCATED ON THE SIDE DECK OF THE YACHT. THE SIDE DECK IS THE ONLY LOCATION THAT LIFTING STRAPS SHOULD BE PLACED FOR LIFTING.

WARNING

NEVER GO UNDER THE YACHT WHILE IT IS SUSPENDED IN A LIFT.

BLOCKING

The hull must be properly blocked to avoid damage when storing the yacht in dry storage. To block, either use a cradle or blocking supports.

If using a cradle, the forward end of the cradle should be slightly elevated to position the yacht in a bow-high attitude. The elevated position allows water in the bilges to flow to the back of the aft bilge and drain through the hull drain.

All of the blocking supports should be setup to prevent the yacht from shifting while in storage. The major portion of the yacht's weight should rest on keel blocks. Side supports should be used to stabilize the yacht ONLY. A MINIMUM of four keel blocks should be used.

WINTERIZATION - SYSTEMS

CAUTION

THE YACHT MUST BE PROPERLY WINTERIZED BEFORE STORAGE. FAILURE TO WINTERIZE THE YACHT COULD DAMAGE THE PIPES, VALVES, FAUCETS, TANKS, HOT WATER HEATER, AND OTHER COMPONENTS.

ENGINES

Refer to the OEM information for details on winterizing the engines.

GENERATOR

Refer to the OEM information for details on winterizing the generator.

MARINE SATCOM UNIT (MSU) STORAGE

If an MSU is equipped on the yacht, during off-season storage, the MSU unit should be deactivated. The MSU should be turned OFF during winter storage.

CAUTION

REMOVE THE INTERNAL BATTERY TO PREVENT FREEZE DAMAGE IF THE YACHT IS NOT STORED IN A HEATED FACILITY. REFER TO THE OEM INFORMATION FOR REMOVAL PROCEDURES.

AIR CONDITIONING SYSTEM

Refer to the OEM information for details on winterizing the air conditioning system. Marquis Yachts winterizes the air condition system in-house. Marquis recommends having a qualified marina winterize the air conditioning system

FRESH WATER SYSTEM

Refer to Section 4: *Fresh Water System* for a description of the yacht's fresh water system.

CAUTION

DRAIN THE ENTIRE SYSTEM, INCLUDING THE WATER HEATER, WHEN WINTERIZING THE FRESH WATER SYSTEM.

DRAINING THE SYSTEM

1. Provide power to the DC Bus Distribution Panel.

CAUTION

DO NOT SUPPLY POWER TO THE WATER HEATER WHEN IT IS EMPTY. DOING SO MAY DAMAGE THE UNIT'S HEATING ELEMENT.

2. On the DC Bus Distribution Panel, located in the Engine Room aft bulkhead, switch the following circuit breakers ON:
   - FORWARD SUMP PUMP
   - AMIDSHIPS SUMP PUMP
   - AFT SUMP PUMP
   - CREW QUARTERS SUMP PUMP
3. Supply AC power to the yacht. Refer to Section 3: *Shore Power* and/or *Generator Power*.
4. Locate the AC Bus 1 Distribution Panel, in the Engine Room Aft Bulkhead:
   - 4a. Switch the Water Heater 1 and 2 circuit breakers OFF. Marquis recommends taping the breakers in the OFF position until the water system is filled and primed after spring recommissioning.
   - 4b. Switch the AC Main Breaker AC Bus 1 circuit breaker ON.
   - 4c. Switch the A/C Main Breaker Salon Panel circuit breaker ON.
5. Locate the AC Distribution Panel, Salon aft cabinet:
   - 4a. Switch the AC Main Breaker ON.
   - 4b. Switch the Pressure Water Pump circuit breaker ON.
6. Open ALL sink and shower faucets, including the faucets for the transom hand shower and bow and transom fresh water washdowns.

7. Switch OFF the Pressure Water Pump circuit breaker when water is no longer draining from the sink taps, shower heads, or fresh water washdowns.
8. Drain the water heater. Refer to the OEM information for details on draining the water heater.

WINTERIZING THE SYSTEM

1. Pour 30 gallons of nontoxic recreational vehicle antifreeze into the fresh water tank.

NOTE: Additional antifreeze may need to be added to the fresh water tank if the fresh water system loses pressure during the winterization procedure.

CAUTION

DAMAGE CAN INCUR TO THE FRESH WATER SYSTEM BY USING THE WRONG TYPE OF ANTIFREEZE. USE A NONTOXIC, NON-ALCOHOL, RV-TYPE (PINK) ANTIFREEZE. DAMAGE RESULTING FROM USING THE INCORRECT ANTIFREEZE IS NOT INCLUDED UNDER THE TERMS OF THE MARQUIS LIMITED WARRANTY.

2. Close all faucets.
3. Switch ON the Pressure Water Pump circuit breaker located on the AC Distribution Panel in the Salon aft.
4. If the optional gray water holding system is **NOT** supplied on the yacht, place a large bucket under the gray water and sump discharge fittings. The bucket catches the antifreeze pumped out described in STEP 5. Refer to Section 9: *Thru-Hull Fittings* for the exact location of the fitting.
5. Open the galley sink cold water faucet. When a steady stream of antifreeze is flowing from the tap, close the faucet.

   TRANSOM HAND SHOWER, BOW AND TRANSOM FRESH WATER WASHDOWNS ONLY:

   5a. Place the shower head in a bucket before turning on the shower faucet. The bucket catches the antifreeze, so the antifreeze can be reused.

   5b. Remove the hose(s) from the fresh water washdown fittings.

   5c. Place a bucket under the washdown fittings to catch the antifreeze, so the antifreeze can be reused.

   5d. Open the washdown faucets. Once a steady stream of antifreeze is flowing from the fittings, close the faucets.
6. Repeat Step 5 for the galley hot water faucet, each cold and hot water faucet on the yacht, and the windshield washer.

NOTE: **STEP 6 EXCLUDES: Transom Hand Shower and Bow and Transom Fresh Water Wash Downs.**

7. If the optional gray water holding system is **NOT** supplied on the yacht, pour one quart of antifreeze into the shower and each sink drain. Refer to Section 8: *Gray Water Holding System* for the exact location of the fitting. **ONCE THE YACHT IS REMOVED FROM STORAGE AND PREPARED TO USE AGAIN**
8. Flush the entire fresh water system with fresh water when the yacht is removed from storage and prepared to use it again. Nontoxic antifreeze is colored; the water system is adequately flushed when uncolored water flows from all of the faucets and shower heads. The water tank may need to be filled more than once to flush the system.

RAW WATER WASHDOWNS

The yacht should be removed from the water before performing the Raw Water Washdown procedure on the optional bow and transom raw water washdowns.

Refer to Section 4: *Raw Water Washdowns* for a description of the raw water washdown system.

RAW WATER WASHDOWN PROCEDURE:

1. Close the seacock that supplies the raw water washdown pump with seawater.
2. Disconnect the end of the hose attached to the washdown side of the seacock.

WARNING

DAMAGE CAN INCUR TO THE FRESH WATER SYSTEM BY USING THE WRONG TYPE OF ANTIFREEZE. USE A NONTOXIC, NON-ALCOHOL, RV-TYPE (PINK) ANTIFREEZE. DAMAGE RESULTING FROM USING THE INCORRECT ANTIFREEZE IS NOT INCLUDED UNDER THE TERMS OF THE MARQUIS LIMITED WARRANTY.

3. Place the disconnected hose end into a bucket containing about a gallon of nontoxic recreational vehicle antifreeze.
4. Connect short hoses to the bow and transom raw water washdown fittings and open valves.
5. Place a bucket under the hoses to catch the antifreeze, so the antifreeze can be reused.
6. Provide power to the DC Bus Distribution Panel, located in the Engine Room aft bulkhead
7. Switch ON the Raw Water Washdown Pump circuit breaker located on the DC Bus Distribution Panel, located in the Engine Room, aft bulkhead.
8. Once a steady stream of antifreeze flows from the washdown fittings, switch OFF the Raw Water Washdown Pump circuit breaker.
9. Disconnect the hoses to the washdown fittings and close valves.
10. Reconnect the hose that was disconnected in STEP 2.

BILGE

Refer to Section 4: *Bilge System*, for a description of the bilge system.

Bilge drainage procedure:

1. Open the hull drain. Leave the drain open while the yacht is in storage.
2. Remove all water from the bilge.
3. Clean the bilge as described in Section 7: *Bilge System*.

SANITATION SYSTEM

Pull the yacht from the water before performing the Standard Sanitation System procedure. Refer to the OEM information for more information on winterizing the sanitation system.

Refer to Section 4: *Sanitation System* for a description of the sanitation system.

STANDARD SANITATION SYSTEM

1. Empty the waste tanks as described in Section 4: *Emptying the Waste Tanks*. Remove as much of the fresh water used in flushing the tanks as possible.
2. If the toilet uses seawater to flush, follow steps a - d below; otherwise, proceed to step 3.
    a. Close the seacock that supplies seawater to the toilet.
    b. Disconnect the toilet seawater hose from the seacock.
    c. Flush the toilet until all water is drained from the seawater hose.
    d. Reconnect the seawater hose to the seacock. Leave the seacock closed.

WARNING

DAMAGE CAN INCUR TO THE FRESH WATER SYSTEM BY USING THE WRONG TYPE OF ANTIFREEZE. USE A NONTOXIC, NON-ALCOHOL, RV-TYPE (PINK) ANTIFREEZE. DAMAGE RESULTING FROM USING THE INCORRECT ANTIFREEZE IS NOT INCLUDED UNDER THE TERMS OF THE MARQUIS LIMITED WARRANTY.

3. Flush 4 gallons of nontoxic recreational vehicle antifreeze through the toilet. Keep the antifreeze in the waste tanks while the yacht is in storage.

4. When removing the yacht from storage and preparing for use the yacht again:
   4a. Flush 5 gallons of fresh water through each toilet.
   4b. Empty the waste tanks as described in Section 4: *Emptying the Waste Tanks*.
   4c. If the toilet uses seawater to flush, open the seacock supplying seawater to the toilet.
   4d. Flush the toilet a few times to prime the sanitation system.
   4e. Charge the waste tanks by adding deodorizer. Use the brand of deodorizer recommended by your Marquis Dealer.

OVERBOARD DISCHARGE SYSTEM

1. Empty the waste tanks as described in Section 4: *Emptying the Waste Tanks*.
2. Remove as much of the fresh water as possible used in flushing the tanks.
3. Place a large bucket under the overboard discharge fitting to collect antifreeze that will be getting pumped out. Refer to Section 9: *Thru-Hull Fittings* for the exact location of the overboard discharge fitting.
4. Provide power to the circuit breakers, located on the DC Bus Distribution Panel.
5. Switch ON the OVERBOARD PUMP FORWARD and/or OVERBOARD PUMP CREW QUARTERS circuit breakers.
6. Open the overboard discharge seacock.
7. Turn the waste tank selector Y-valve to select the tank to winterize first, forward or aft tank.
8. Turn ON the appropriate overboard discharge pump switch, forward or aft, depending the selection from Step 7.
9. Turn OFF the overboard discharge pump switch, once a steady stream of antifreeze flows from the overboard discharge fitting.
10. Turn the waste tank selector Y-valve to select the tank remaining to be winterized. Repeat steps 8 and 9.
11. Close the Overboard Discharge Seacock(s).
12. Repeat steps 8 and 9 to empty the Crew Quarters Waste Tank.
13. Locate the DC Distribution Panel.
    13a. Switch the Overboard Pump Forward and/or Overboard Pump Crew Quarters circuit breakers OFF.

ONCE THE YACHT HAS BEEN REMOVED FROM STORAGE AND PREPARED FOR USE AGAIN:

1. Flush 5 gallons of fresh water through each toilet.
2. Empty the waste tanks as described in Section 4: *Emptying the Waste Tanks*.
3. If the toilet uses seawater to flush, open the seacock supplying seawater to the toilet. Flush the toilet a few times to prime the sanitation system.
4. Charge the waste tanks by adding deodorizer. Use the brand of deodorizer recommended by your Marquis Dealer.

GRAY WATER HOLDING SYSTEM

Before performing the optional grey water holding system procedure, the yacht should be pulled from the water. Winterize the gray water holding system only after the fresh water system has been winterized.

There are two types of gray water holding systems: the Standard System and the Overboard Discharge System.

STANDARD GRAY WATER TANK SYSTEM

1. Empty the gray water tank as described in Section 4: *Gray Water Holding System*. Remove as much of the fresh water used in flushing the tank as possible.
2. Verify that the Shower Sump circuit breaker is ON, located on the Safety Breaker Panel

WARNING

DAMAGE CAN INCUR TO THE FRESH WATER SYSTEM BY USING THE WRONG TYPE OF ANTIFREEZE. USE A NONTOXIC, NON-ALCOHOL, RV-TYPE (PINK) ANTIFREEZE. DAMAGE RESULTING FROM USING THE INCORRECT ANTIFREEZE IS NOT INCLUDED UNDER THE TERMS OF THE MARQUIS LIMITED WARRANTY.

3. Pour 3 gallons of nontoxic recreational vehicle antifreeze through each shower and sink drain.

ONCE THE YACHT IS REMOVED FROM STORAGE AND PREPARED FOR USE AGAIN:

4. Pour 5 gallons of fresh water through each shower and sink drain.
5. Empty the gray water tank as described in Section 4: *Gray Water Holding System*.
6. Charge the gray water tank by adding deodorizer. Use the brand of deodorizer recommended by your Marquis Dealer.

OVERBOARD DISCHARGE SYSTEM

1. Empty the gray water tanks as described in Section 4: *Gray Water Holding System.* Remove as much of the fresh water used in flushing the tanks as possible.
2. Locate the Safety Breaker Panel:
   - 2a. Turn ON the Accessory Battery master disconnect switch
   - 2b. Switch ON the MAIN circuit breaker.
   - 2c. Verify that Shower Sump circuit breaker is ON.

CAUTION

DAMAGE CAN INCUR TO THE FRESH WATER SYSTEM BY USING THE WRONG TYPE OF ANTIFREEZE. USE A NONTOXIC, NON-ALCOHOL, RV-TYPE (PINK) ANTIFREEZE. DAMAGE RESULTING FROM USING THE INCORRECT ANTIFREEZE IS NOT INCLUDED UNDER THE TERMS OF THE MARQUIS LIMITED WARRANTY.

3. Pour 3 gallons of nontoxic recreational vehicle antifreeze through each shower and sink drain.
4. Place a large bucket under the gray water overboard discharge fitting to collect antifreeze pumped out. Refer to Section 9: *Thru-Hull Fittings,* for the exact location of the overboard discharge fitting.
5. Open the grey water overboard discharge seacock.
6. Turn the Y-valve to select the gray water tanks.
7. On the DC Control Center:
   - 7a. Switch ON the Main circuit breaker.
   - 7a. Switch ON the Waste Pump circuit breaker.
8. Turn ON the overboard discharge pump switch.
9. Turn the overboard discharge pump switch OFF when a steady stream of antifreeze flows from the overboard discharge fitting.
10. Close the overboard discharge seacock.
11. Switch OFF the Waste Pump circuit breaker.

WHEN THE YACHT IS REMOVED FROM STORAGE AND PREPARED FOR USE AGAIN:

12. Flush and pump out the grey water tanks to remove the antifreeze.

EXTERIOR

As part of the winterization of the yacht, there are a variety of items checked and completed to the yacht's exterior prior to storage. Marquis has created a check list as follows:

- Wash the exterior of the yacht, particularly the underwater portions.
- Remove as much aquatic growth as possible while wet. Dried growth it is more difficult to remove.
- Check the zinc sacrificial anodes for deterioration.
- Have the zincs replaced before spring launch if signs of deterioration show
- Check stainless steel rails and fittings for signs of rust.
- Remove rust prior to winter lay-up. Inspect the underwater portions of the hull.
- Review anything that looks out of the ordinary with your Marquis Dealer.

INTERIOR

As part of the winterization of the yacht, there are a variety of items checked and completed to the yacht's interior prior to storage. Marquis has created a check list as follows:

- Air out cushions until completely dry. Storing damp cushions leads to mildew.
- Position the cushions to allow air to circulate around them.
- Purchase and position moisture accumulators throughout the yacht. The moisture accumulators help reduce the amount of moisture that accumulates during storage.
- Remove item that could spoil or freeze while the yacht is stored.
- Remove all dried food. Food attracts mice and insects.

STORAGE

Marquis recommends storing the yacht in dry storage to maximize protection.

DRY STORAGE

Protecting the yacht from the elements during winter storage is advised. Have a local marina shrink wrap the yacht, or have a winter storage cover made. Occasionally check on the yacht while in storage to make sure that it is in good condition.

OUTSIDE STORAGE

Properly support a storage cover and secure the cover over the yacht. Do not secure the cover too tightly. Allow adequate ventilation to protect against dry rot. Do not store the yacht in a damp storage enclosure. Purchase and position moisture accumulators between the shrink-wrap and the yacht's enclosures to help prevent moisture from accumulating. Excessive dampness can lead to mildew, electrical problems, corrosion and dry rot.

NOTE: If the Hull drain plug is removed for storage make sure to install plug prior to launch.

WET STORAGE

Wet storage procedures vary from region to region. Consult your Marquis Dealer before preparing to leave the yacht in the water over the winter.

(See next page for Spring Recommissioning Checklist)

SPRING RECOMMISSIONING CHECKLIST

Before launching for the first time of the season, complete the following checklist. (See next page for list.)

HULL

- ☐ Fill gelcoat nicks and gouges
- ☐ Inspect props, struts, rudders
- ☐ Inspect thru-hull fittings
- ☐ Apply new antifouling bottom paint or touch up failing areas
- ☐ Buff out minor hull scratches
- ☐ Remove dirt, stains
- ☐ Apply wax

DECK AND CABIN

- ☐ Inspect hatches and windows for leaks
- ☐ Wax non-walk surfaces

ENGINES

- ☐ Follow manufacturer's recommissioning guidelines
- ☐ Inspect belts, hoses
- ☐ Tune-up engines
- ☐ Replace fuel filters

ELECTRICAL SYSTEM

- ☐ Check battery water level
- ☐ Charge batteries
- ☐ Inspect connections for corrosion

PLUMBING

- ☐ Purge fresh water system of antifreeze
- ☐ Replace Sealand vent filters.
- ☐ Inspect seacocks
- ☐ Inspect heads
- ☐ Chemically charge waste and grey water tanks
- ☐ Fill fresh water tank

SAFETY EQUIPMENT

- ☐ Inspect PFDs
- ☐ Replace old distress signals
- ☐ Inspect fire extinguishers
- ☐ Inspect, test bilge pumps
- ☐ Inspect mooring lines, fenders
- ☐ Test, recalibrate and/or replace CO detectors

AFTER LAUNCH

- ☐ Check for engine cooling water flow
- ☐ Check propeller shaft alignment
- ☐ Check propeller shaft seals
- ☐ Check crankcase (yacht must be in-water)
- ☐ Check transmission oil levels
- ☐ Have compass professionally calibrated
- ☐ Inspect thru-hulls, exhaust, etc.

WARRANTY INFORMATION

Marquis Yachts warrants every yacht we manufacture, explained in the Marquis Limited Warranty. A copy of the warranty is located at the end of this section. Please review the warranty carefully.

To ensure that the warranty remains in effect during its lifetime, Marquis Yachts, your Marquis Dealer, and you (the owner) all must uphold specific responsibilities. Marquis's responsibilities are described in the Marquis Limited Warranty.

MARQUIS DEALER'S RESPONSIBILITIES

WARRANTY INFORMATION

Your Marquis Dealer will review the terms of the warranty and make certain the warranty is registered with Marquis. Your Dealer will also give instruction on how to obtain warranty service.

PRE-DELIVERY SERVICE PROCEDURE

Your Marquis Dealer will prepare the yacht for delivery in accordance with the procedures detailed on the Pre-Delivery Service Record. Your dealer will sign the Pre-Delivery Service Record and provide a copy.

Registration is required for the yacht and its engines by the Federal Safe Yachting Act of 1971. Your Marquis Dealer will complete and mail the engine warranty cards as part of the Pre-Delivery Service procedure.

YACHT AND SYSTEMS REVIEW

A representative from your Marquis Dealer will review the operation of the yacht and its systems.

OWNER'S RESPONSIBILITIES

PRE-DELIVERY SERVICE RECORD

Verify that the yacht's pre-delivery service record has been completed and mailed to Marquis. The pre-delivery service record is located in the Preface of this guide. Review the Pre-Delivery Service procedure with your dealer. Read the Pre-Delivery Service Record. Sign a copy of the Pre-Delivery Service Record and retain a copy for your records.

OEM COMPONENTS

Many of the OEM components installed in the yacht are warranted by their manufacturers. Complete and mail all OEM warranty cards to activate the manufacturers warranties. The warranty card for each component warranted is located with the OEM information. Many of the OEMs also have programs designed to resolve problems experienced with their products. Your Marquis Dealer can assist in gaining access to the programs.

NOTE: All warranty cards must be completed and forwarded to the appropriate company within 5 days of the yacht's delivery.

DELIVERY

Make a complete inspection of the yacht and its systems at the time of delivery. Document work that needs to be completed by the dealer to meet the terms of agreement.

OWNER'S INFORMATION KIT

Read, understand, and follow the instructions provided in the Owner's Guide, and all other guides and manuals supplied with the yacht, including all OEM information.

Contact your Marquis Dealer if any questions regarding warranty responsibilities arise.

OBTAINING WARRANTY SERVICE

The following requirements must be met before warranty work can be performed on the yacht.

1. Registration of the yacht with Marquis Yachts is required. Register by completing, and submitting the Pre-Delivery Service Record to Marquis Yachts, P.O. Box 1010, Pulaski, WI 54162-1010.
2. Pre-Delivery Service must be completed by your Marquis Dealer. Information about the Pre-Delivery Service can be found in the preface of this manual. The Pre-Delivery Service Record must be signed by both the dealer and the owner.

NOTE: ONLY your Marquis Dealer is authorized to approve warranty work. Your Marquis Dealer must be contacted first if warranty service is needed. There are no exceptions to this policy.

Your Marquis Dealer has knowledgeable professionals who are familiar with Marquis Yachts, and are capable of providing the highest level of service. The Marquis Dealer's service personnel will communicate with Marquis Yachts to ensure fast and satisfactory solutions to any problem will be addressed.

SECOND & THIRD OWNER REGISTRATION

A "Second Owner Registration" card and "Third Owner Registration" card are located in the Preface of this Owner's Guide. The purchaser of a previously owned Marquis yacht should complete the appropriate card, and mail it as soon as taking title of the yacht.

Registration of a previously owned Marquis yacht does not extend or in any way modify the yacht's original limited warranty. However, purchasers of a previously owned Marquis yacht should register the yacht, so if necessary, Marquis can contact the current owner.

HULL IDENTIFICATION NUMBER

The U.S. Coast Guard has established an identification system which assigns a unique hull identification number (HIN) to each yacht. The HIN consists of 12 alphanumeric characters which provide coded information about the yacht.

Provide your Marquis Dealer with the yacht's HIN when contacting for parts or service.

OEM's

Contact your Marquis Dealer first when information is needed about a system or component on the yacht. If your Dealer is unable to provide the information, contact the manufacturer (OEM) of the system or component. Refer to the OEM information for telephone numbers and addresses.

Be ready to provide the component's Serial Number when contacting an OEM for information. A Serial Number Record Sheet is provided separately in the manual. Use the provided sheet as a convenient location to record the serial numbers of the yachts OEM components.

SPECIFICATIONS

The specifications listed below are based on a standard model with no options installed. Some options may change the listed specifications.

LOA (with platform) . . . . . 72'-0" (22 m)

Beam . . . . . 18'-4" (5.5 m)

Bridge Clearance (waterline to arch - est) . . . . . .24-5" (7.4 m)
Cabin Headroom . . . . . .6'-8" (2 m)
Draft. . . . . 4'-11" (1.5 m)
Fuel System. . . . . .1300 U.S. gals. (4921 liters)
Holding Tank . . . . . .200 U.S. gals. (757 liters)
Water System . . . . . .153 U.S. gals. (580 liters)
Weight (estimated, with fuel and water) . . . . . 54.5 tons. (49.4 tonnes)
Sleeps . . . . . 3 Standard, 4 optional (Crew Quarters)
Swim Platform . . . . . 1000 lbs (454 kilos)

LOAD CAPACITY

INTERNATIONAL MODEL

The certification plate is located near the helm if an International model has been purchased. The certification plate indicates the maximum weight and capacity the yacht is designed for under calm sea conditions. The number of individuals on board must be reduced if the weather is poor and water is rough.

DOMESTIC MODEL

It its the Captain's responsibility to maintain a safe capacity if a domestic model has been purchased.

DANGER

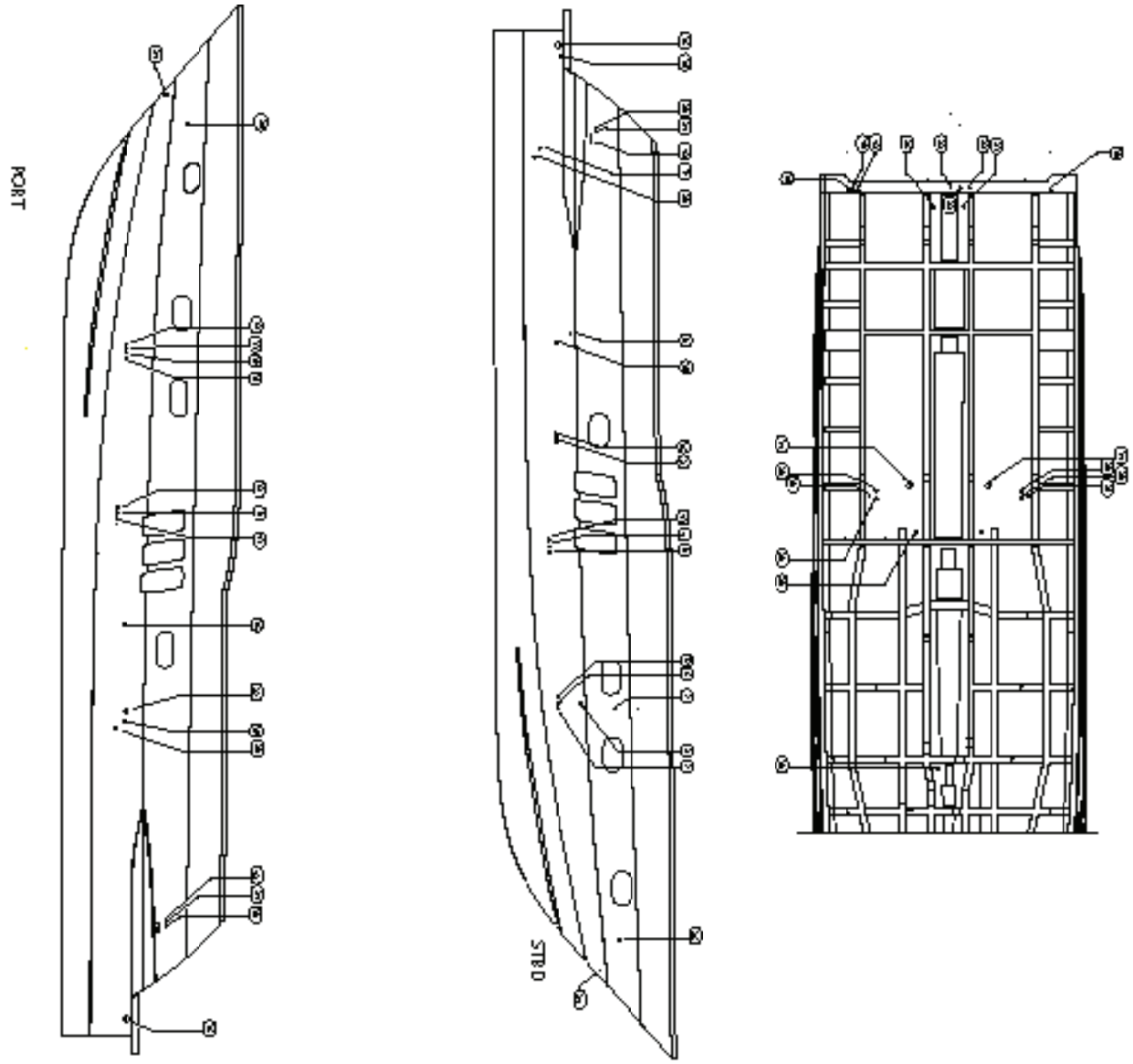
DO NOT EXCEED THE LOAD CAPACITIES STATED. THE INFORMATION ON THE CERTIFICATION PLATE DOES NOT RELIEVE THE OPERATOR FROM RESPONSIBILITY. USE COMMON SENSE AND SOUND JUDGEMENT WHEN PLACING EQUIPMENT AND/OR PASSENGERS IN THE YACHT.

Marquis Yachts, LLC is a continuous improvement manufacturer. Marquis may change product specifications, features, options and prices at any time including changes during the model year, without prior notification or obligation to other Marquis yachts. Marquis makes no warranty or representation to performance or fuel range of an individual yacht due to the many factors that may affect the performance obtained.

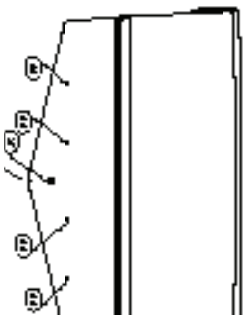
The illustrations on the following pages show the locations of various components, deck plates, and thru-hull fittings discussed throughout this guide.

(See Next Page for *Component Locations*)

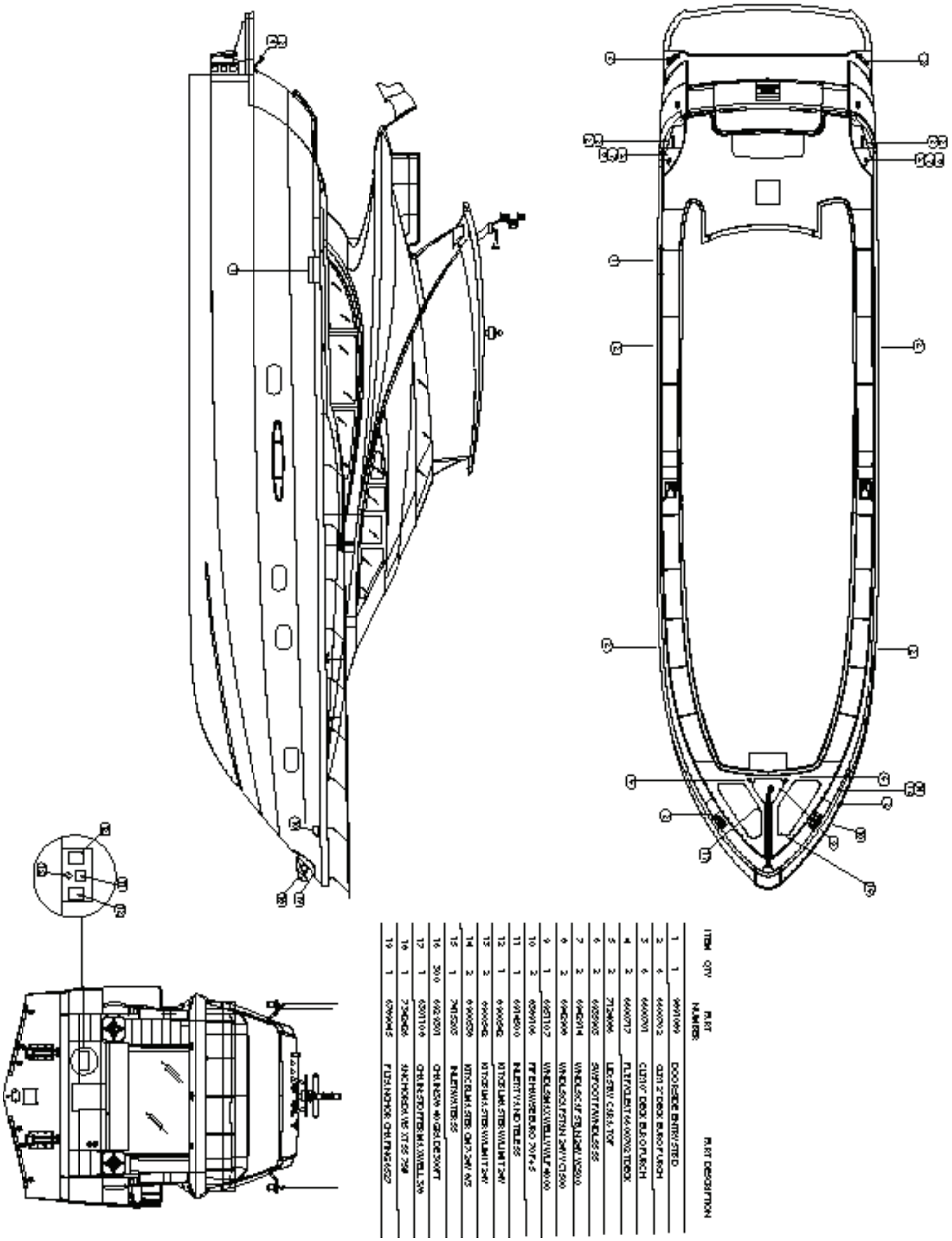
THRU-HULL FITTINGS



ITEM	QTY	PART DESCRIPTION
1 &3	2	BILGE PUMP
1 &3	2	BILGE PUMP
2	1	GREY WATER DISCHARGE
2		PILOT HOUSE A/C DRAIN
4	1	WASHDOWN (CLOTHES)
5	1	LIFT VALVE (PORT)
6	1	FWD WASTE TANK VENT
7	1	OVERBOARD DISCHARGE
8	2	STEP WELL DRAIN
9	1	SALOON A/C CONDENSATE DRAIN
10	1	VENT WASTE TANK
11	1	WATER HEATER
12	1	GALLEY SINK
13	1	FWD SHAFT DISCHARGE
14	2	DECK DRAIN (PORT)
15	2	DECK DRAIN (STBD)
16	1	GENERATOR EXHAUST
17	1	GENERATOR WATER DISCHARGE
18	1	OVERBOARD DISCHARGE
19	1	OVERBOARD DISCHARGE
20	1	OVERBOARD DISCHARGE
21	1	A/C PICKUP
22	1	A/C DISCHARGE
23	1	GREY WATER SUMP
24	2	VENT FOR FLOODS
25	1	FWD STBD DRAIN/OUTLET
26	1	FWD PORT DRAIN/OUTLET
27	1	ZINC INSERT TANK
28	2	TRANSMISSION WATER DISCHARGE
29	2	ENGINE RAW WATER COOLANT RETURN
30	1	GREY WATER LOOP
31	1	TANK TOP
32	1	TANK TOP DRAIN
33		EXTERIOR AIR DISCHARGE
34	2	CAPSTAN DRAINS
35	1	RAW WATER WASHDOWN
36	1	AUX GENERATOR PICKUP (OIL
37	1	AUX GENERATOR EXHAUST
38	1	AUX GENERATOR WATER DISCHARGE
39	1	TRANSDUCER
40	1	WATER DRAIN
41	2	DECK DRAIN
42	2	COCKPIT DRAINS
43	1	SEA CHEST DRAIN
44	4	UNDERWATER LIGHTS



THRU-HULL FITTINGS



ITEM	QTY	PART NUMBER	PART DESCRIPTION
1	1	9991099	DOOR SIDE ENTRY STEP
2	4	4440052	CLEAT 2" DECK MOUNT
3	6	4440051	CLEAT 6" DECK MOUNT
4	2	4440017	FLAT INLET 4 MOUNTING HOLES
5	2	7134000	LED STRIP LIGHT
6	2	4455005	3M FOOT RAIL HANDLE
7	2	4440014	WINDLASS UP SOLENOID
8	2	4440009	WINDLASS DOWN SOLENOID
9	1	4401107	WINDLASS WINCH ASSEMBLY WITH CABLE
10	2	4999104	FRESH WATER FILL
11	1	4414000	INLET THRU HULL
12	1	4	KIT SCUPPER WITH LIMIT SW
13	2	4	KIT SCUPPER WITH LIMIT SW
14	2	4	KIT SCUPPER WITH LIMIT SW
15	1	7415005	INLET WATER
16	300	4403001	CHAIN 5/16 HIGH TEST
17	1	4301104	CHAIN STOPPER WITH BOLTS
18	1	7340004	ANCHOR 35 LBS
19	1	4999045	FLUSH MOUNT CHALK RACK

Bill of Materials

Marquis Limited Warranty

OPTIONS

The Marquis 720 can be configured in a variety ways. This manual is not configured to contain every option. However, a few optoins are notable.

- The auxiliary fuel tank, mounted on the PORT side aft transom area, as illustrated in Section 5. The tank is accessible through the Crew's Quarters.
- The Crew Quarters is an imPORTant notable option due to the variations in design to the items on the yacht, including:
  - Electrical (generator) area
  - Fire equipment
  - Access to discharge pumps

Familiarize yourself with the entire yacht. Shown below are photos of two of the systems that have variations.

FRESH WATER PUMPS

AUXILLARY GENERATOR

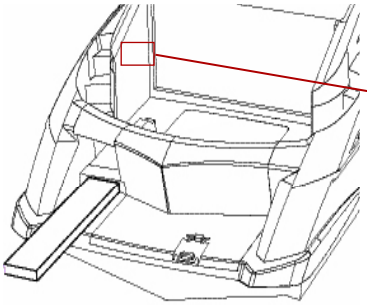
Located in the engine room , midships between the main engines.

PASSERELLE

The extendable gangplank is hidden under the decking at the Starboard entrance gate. The system is a battery operated, hydraulic mechanism. The controls are mounted on the bulkhead in the aft port side of the boat. The hydraulic unit located is in the engine room (Starboard side aft of the water heater). Circuit breaker is on DC Control Center (Engine Room).

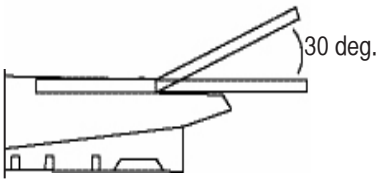
The passerelle is designed to ease boarding when tides affect the height of the boat to the dock. The passerelle is designed to rotate upward in an approximate 30 degree angle to accommodate most tidal conditions (See detail below).

Passerelle: Shown Fully Extended

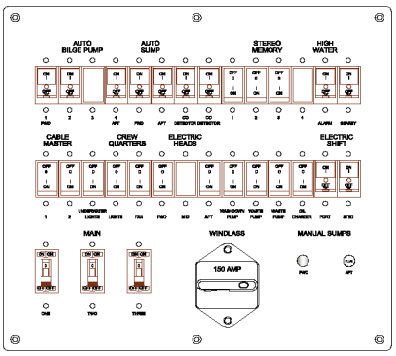


Passerelle Control Location

Passerelle Switches



Passerelle Mounting Location and Range



DC Control Center

Passerelle Hydraulic Unit

TRANSOM CAPSTAN

Mounted on the Port aft section of the boat is a capstan drive unit. To operate, supply DC power to the unit from a circuit breaker in the DC Control Center: *Engine Room*.

The Capstan switch is mounted in the floor near the unit. Lift the protective cap and use foot to operate.

Capstan

Capstan Footswitch

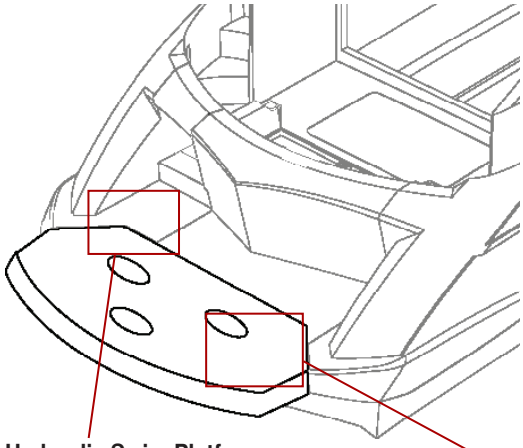
HYDRAULIC SWIM PLATFORM

A hydraulic option is designed on the transom swim platform to allow the platform to lower toward the surface of the water and raise to level deck height. The control is mounted inside of the storage area, located on the port aft deck. The hydraulic pump is located in the Starboard aft bilge.

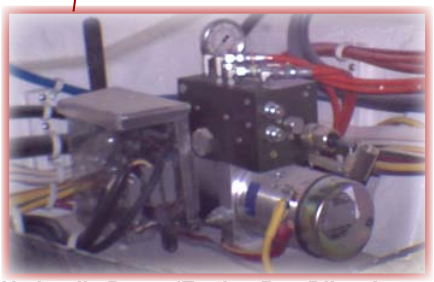
Power is supplied through a circuit breaker in the DC Control panel, located in the engine room. A safety latch keeps the swim platform at even deck height when not in use. The latch is released when the control is used to lower the platform. A slight delay occurs when the platform lowers as the hydraulic system raises the locking latch before lowering can begin.

WARNING

DO NOT EXCEED THE 800 LB. MAXIMUM LIFT CAPACITY FOR THE SWIM PLATFORM. THE SWIM PLATFORM IS NOT DESIGNED USED TO LIFT PEOPLE. ALL PERSONS MUST BE CLEAR WHILE RAISING AND LOWERING THE PLATFORM DUE TO THE PINCH POINT WHERE THE PLATFORM MEETS THE HULL.



Hydraulic Swim Platform



Hydraulic Pump (Engine Rm. Bilge Area

Swim Platform Hinge System